PROBLEMS OF EDUCATIONAL READJUSTMENT

DAVID SNEDDEN

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PROBLEMS OF EDUCATIONAL READJUSTMENT

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PREFACE

How shall education be made efficient? Undiscriminating critics have always condemned the schools for their failure to produce a higher type of men and women; but now the large majority of educators are themselves convinced that the traditional processes of training and instruction are far from rendering efficient educational service. In all directions men and women, moved by the vision of a brighter future on earth, are striving to promote human well-being. Education is but one of the phases of this newer social economy. It, too, is certainly capable of being made more purposeful, more scientific, less blind in its methods, less doubtful as to its results.

But educational processes can be improved only as particular phases or fields of education are singled out for consideration and constructive effort. It is probable, for example, that American primary education, judged by valid

standards, would be found to be far more efficient than that designed for young persons from twelve to fourteen years of age, or that designed for youths from fourteen to eighteen years of age. Again, careful analysis might show that the customary education of the high school is fairly effective for that minority who are qualified to pass to institutions of higher learning; while for the large majority, to whom it represents the final stage of systematic cultural education, it may be of little actual service. The problem is one to be considered as it touches particular groups of children or particular aims to be realized.

In each of the following papers a particular educational problem is isolated for purposes of analysis and discussion. In each case the problem is one growing out of contemporary efforts to render education more effective by defining purposes or aims in a scientific manner, and to secure methods designed to achieve these purposes.

There can be but little question that the most characteristic weakness of American edu-

cation, as that concerns young persons from twelve to eighteen years of age, is to be found in its failure to formulate valid aims. Being guided by no sufficient aims, it is inevitable that the educational practice followed shall waver between the Scylla of custom-made (and therefore blind) method on the one hand, and the Charybdis of purely empirical device on the other.

The following papers, with one exception, treat of but a few of the fundamental problems growing out of the unscientific aims of contemporary education as that is designed for adolescents. What do we mean by culture, social efficiency, or liberal education? What is vocational education, and how is it related to general education? What are some broad principles of method by which profitable results are to be achieved? These questions are at least implicit in the discussion of each topic presented.

The papers have been written with a view to provoking further discussion of the questions involved. If it be true that in the field

of general secondary education we have as yet few aims that are educationally serviceable or valid, then we must address ourselves to this field of study before we can either determine subject-matter or elaborate right method. An illustration may serve to make this clear.

If, for example, we ask the question as to why girls should, as a condition of graduating from the ordinary high school course, be required to study algebra, we shall be given two sorts of replies, each based on certain conceptions of educational aim. The first answer will be to the effect that algebra is a necessary part of a secondary education, that it is prescribed for admission to college, etc. But if it be further asked why the subject is required in secondary education or for admission to college, we receive the familiar replies that the study of algebra has peculiar merit as a means of "training the mind," "giving culture," "leading to a comprehension of the universe," "serving as a foundation for vocational efficiency," etc.

It is evident that no school subject can

rightly be regarded as an end in itself. But equally it should be clear that the vague and general ends stated above are as yet so indeterminate and illusory as to serve little or no useful purpose in enabling us to determine, in the first place, whether algebra study should be required at all, and in the second, as to the methods to be followed and specific results to be sought in teaching it.

Somewhere in the cultural, social, and vocational utilities of modern life are to be found the determining aims of education; and in large measure these must be analyzed and studied one by one. The educator must evolve a philosophy of the educative process as a whole; but he must learn to seek his goal by successive steps and stages, each clearly previsioned in relation to the whole.

D. S.

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PROBLEMS OF EDUCATIONAL READJUSTMENT

I

THE NEW EDUCATION AND EDUCATIONAL READJUSTMENT

Is there a new education? There certainly is a new education in the same sense that there is a new industrial order, a new practice of medicine, a new philanthropy. The new education, as yet but partially evolved, owes its origins, on the one hand, to the development of scientific knowledge, and on the other, to the spread of democratic ideals. Science has revolutionized agriculture, commerce, communication, and warfare; and it is now bringing in a new education. Strivings towards democracy, expressed in the newer social economy, have transformed government, religion, and social organization; the new ed-

ucation is in part the product of the same influences.

What we call, for convenience, the new education is at present an exceedingly composite affair. In large part it is a matter of new ideals rather than of new practice. The breakdown of faith in older customs and doctrines is always accompanied by a boundless disposition to launch new experiments and to form new parties or cults. While in some slight measure the new education may already have influenced social evolution, it is primarily the demands of contemporary civilization which are forcing readjustments in education. This new civilization is compelling education to define anew its purposes, to extend the range of its activities, and to improve upon its ancient methods.

In education, as in many other forms of institutional life, the present is a period of acute transition. Education has hitherto rested upon a foundation of custom; it must hereafter rest upon a basis of scientific knowledge. Its aims and practices have been in large

measure the slowly derived products of the method of "trial and success." A civilization, or any institution needful to civilized life, can develop only to a limited degree upon the basis of the "trial and success" method, the results of which are crystallized into customary practice and dogma. Only up to a certain point in social evolution, is the "custom" basis efficient; beyond that, it is wasteful and retarding.

Modern history presents many of the characteristics of periods of transition in the several forms of institutional life. The industrial processes of the eighteenth century rested everywhere on a basis of social habit; the modern transformation of industry, due to the application of scientific knowledge, has been a painful but a glorious process. The productivity of human labor has undoubtedly been increased many fold thereby, but it is not clear that the accompanying social readjustments have been more than partially beneficent. Modern agriculture, with its adjunct of cheap transportation, differs, at its best, immeasur-

ably from the agriculture of even seventy-five years ago. But the transformation now going on here is even yet chaotic in many of its aspects, and is attended still by the disappearance of cherished institutions which were themselves the slow outgrowth of the ancient customs of tillage and soil ownership.

The "arts of healing" of our grandfathers, the product of ages of selective effort, have given way to the modern science of medicine. But people still cling to the dogmas and cures of the older medicine as to cherished heirlooms, and not all of the changes accompanying the development of the "new medicine" have been fortunate. In this transition from social habit to medical science, we have seen the conflicts of opinion, the destruction of old beliefs, the ineffective pretensions of practices based upon half-tested science, and, in many cases, the same overtaxing of the powers of readjustment, which make all great social revolutions painful, and often productive also of skepticism and disorder.

In education we are as yet nearer the be-

ginning than the end of a great period of transformation. It is inevitable that this should be so because of the complex and obscure character of the sciences upon which, ultimately, all educational practice must rest. The physical sciences, which are to a great extent basal to industry, war, and communication, were the first to reach a considerable stage of development; while chemistry, and the biological sciences, which underlie medicine, and also agriculture, have now a long period of development behind them. But psychology and sociology, the contributions of which are fundamental to a science of education, are themselves as yet undeveloped and indefinite.

But sufficient progress has been made in the evolution of the "new education" to convince nearly all careful students that the old order has already been largely outgrown. The demands of contemporary society for a more purposeful, a more comprehensive, and a more efficient system of preparing the young for adult life, are insistent and of increasing de-

finiteness. Confidence in the dogmas and customary practices of the older education is steadily lessening. Forces outside the field of education altogether are compelling a variety of readjustments in its aims and methods. Among educators themselves the disposition grows to regard education as a suitable field for experimental effort and systematic inquiry. They are no less ready than the critics outside the profession to share in the deliberate challenging of long established doctrines.

A widespread development of the new education must prove a very difficult matter. Not only are scientific foundations in psychology and sociology as yet insufficiently developed; experimentation along new lines of educational practice is beset with unusual handicaps of every description. The responsibilities of administering education are commonly so great as to retard or even to prevent the growth of the scientific temper on the part of executive officers; the public, while tolerant enough of new hobbies or "faith cures" in education, is hostile to experimental effort

as such; while education as a field of human enterprise hardly attracts as yet the spirits that delight in exploration and settlement in new regions.

The present period of transition in education, therefore, presents problems of readjustment which are especially difficult to deal with because many changes must be made at a time when our available knowledge is insufficient to guide us aright. It has sometimes been found necessary in American railroading to build a new bridge, to take the place of an old, while traffic continued to move over the rails. If we can imagine such an undertaking imposed upon men who did not possess, and could not at the time obtain access to, the organized knowledge that governs in bridgebuilding, we should then have a situation somewhat analogous to that which prevails in contemporary public education in America when institutions dealing with nearly 20,000,000 young persons, employing about 500,000 public servants and expending annually nearly $500,000,000, must, on the basis

of little-tested knowledge, be transformed to meet the requirements of a new and complex social order.

The conditions which give rise to the demand for a new education are not unlike those which are forcing transformations in religion, in government, in international relations, in the social side of industry, in the administration of justice, and in the family relationship. Profounder insight, on the one hand, and greater sensitiveness to human deficiency, on the other, — these are the twin forces everywhere operative in convincing men that human incapacity, suffering, and waste can be reduced, and life be made better through the more purposeful use of such scientific knowledge as every day becomes more accessible.

However lacking we may still be in detailed knowledge as to how the demands upon the new education are to be met, the broad lines of the readjustments that will have to be made are now evident. The older education was a social agency having fairly well-defined aims, a limited adaptability, and fixed methods em-

pirically derived; and it had evolved an administrative organization suited to its scope and purposes. The new education will obviously have to possess far wider and more purposeful aims; its range of adaptability will, of necessity, be immeasurably greater; its methods must rest on a scientific basis; and its organization must become complex and flexible in order to produce an efficient combination of democratic control and technical direction. In each of these directions a wide range of problems is certain to be encountered, some of which are even now capable of being formulated and examined.

The aims and scope of the new education must be defined in terms of social economy as that subject is coming to be conceived. The words "social economy" are now employed to describe comprehensively the numerous studies and practices which deal consciously with the practical problems of reducing suffering and waste of life, and of promoting human well-being. Society, developing self-consciousness, and aided by various forms of available scien-

tific knowledge, finds an enlarging field of opportunity for the promotion of human welfare by the application of tested knowledge to a great variety of social conditions and through many agencies. Prevention and cure of disease by concerted action, control of the conditions giving rise to crime and moral delinquency, improvement of the conditions of labor, furtherance of the agencies making for culture, civic idealism, and economic efficiency — these are but a few of the phases of conscious social action comprehended under the phrase "social economy."

All experience is proving conclusively that the best purposes of an efficient social economy are to be realized through processes that are essentially educational — that is, by the conscious control of the formation of habits, of the development of ideals, and of the imparting of knowledge during the immature period of the lives of those who are yet to carry the full responsibilities of citizenship. Education, then, is a phase, and a large phase, of social economy.

But this interpretation of education operates inevitably to modify in far-reaching ways the prevailing conceptions as to educational aims, and especially those aims which should govern in that educational agency called the school.

For it now becomes clear that there are many agencies which, with more or less consciousness of purpose, are concerned in education. The home, the church, the workshop, and the playground are the most ancient of these; while the stage, the press, the club, and the library are also potent under modern conditions. But in America none of the foregoing is in any substantial degree under the direct control of that social agency which expresses the collective will of all, namely, the State. Each is private or corporate in character and subject to influences which may reduce or nullify its better educational possibilities.

The public school is to-day the chief agency to which society must turn in its efforts to realize the more far-reaching aims of the newer education. It is socially expedient and necessary that all educational purposes which

other agencies will not voluntarily assume shall be realized in and by the public school in some form; and the extent to which this responsibility shall be taken over by the schools must, apparently, increase steadily.

If the home fails to give instruction in hygiene essential to the requirements of wholesome and sanitary living, as these are now understood, then the school may be expected to assume this function. If the farm and the workshop cannot do what they once did in fitting young people to perform productive work efficiently, then schools under public support and control will certainly be created for this purpose. If the street and vacant lot prove ineffective or harmful as agencies for the education to be realized through play, then corresponding facilities will be developed under the oversight of some form of public school. If, for certain groups, the church proves unequal to the problems of education in higher forms of idealism, then sooner or later we shall find society requiring that the public schools shall discover ways of doing the needed work.

If press and stage prove, under private and commercial control, but sorry educational agencies, then it will be inevitable that a society, desirous of keeping pure the fountains of early insight and ideals, will demand that the public school discover ways of providing substitute or countervailing influences.

The last half-century has witnessed in all civilized countries an enormous enlargement of the functions of the public school. Much of this has been opposed and misunderstood because the underlying conditions have not been fully comprehended or have failed to win ready acceptance. As the various sciences have developed, the importance of using the schools as means of diffusing the knowledge thus organized has been slowly realized. As the desirability of giving all persons some acquaintance with art, literature, and history has asserted itself in conjunction with the shaping of the ideals of democratic society, the school has offered itself or has been drafted for this purpose. As the changing home finds itself less favorably placed to give varied and con-

crete introductions to the vocational arts, the demand that the school assume this responsibility becomes insistent.

What are the probable limits of this delegation of responsibility and function to the school? That is one of the unsolved problems of modern social economy. But some phases of the situation are now intelligible. The school, from being a rival and competing educational force, must, in the new order, become a consciously complementary, and deliberately cooperating, agency. The school of the older organization often played at cross-purposes with the home; it disparaged the education to be found in the workshop devoted to productive activity; in recent years it often separated itself sharply from the church; and it ignored or antagonized such educational forces as playground, press, and stage. The school of the past doubtless found it necessary and desirable to take this position in order that it might, thus fortified by its exclusiveness, achieve its best results.

But such a condition can no longer persist.

It is out of harmony with the prevailing conceptions and the requirements of an effective social economy. It is wasteful of human energy, and it nullifies the best of educational endeavors. It leads to no organic constructive policy.

In the new education, the school must comprehend its position and responsibilities as one of several educational agencies, each capable of functions which the other cannot effectively perform; but it must be perceived that the school has a peculiar responsibility, perhaps superior to that of any of the other agencies. In the school, the educational process must be visioned as a whole; and from the school must radiate the influences which will invigorate and direct the educational activities of other institutions. Hence, the school must coöperate actively, sympathetically, and purposefully with the home, the church, the shop, the playground, the press, the stage, the club, and the library in their efforts to shape youth into serviceable manhood and womanhood. Society is manifesting

a growing tendency not only to place upon the school responsibility for the discharge of such desirable educational functions as other agencies cannot or will not perform; it is also making the school, in a sense, the final custodian on behalf of the State of the child's educational well-being. In the school will undoubtedly develop those supplemental agencies designed, in the case of limited classes of defective, delinquent, and otherwise exceptional children, to make up for the deficiencies of other educational agencies. Here also will center those other forms of oversight and direction designed to compel needful action on the part of private and corporate agencies, where these touch and influence the development of childhood.

It will be no small problem, in this connection, to prevent the school from unduly aggrandizing educational authority. So to readjust its attitude as to give full scope, with sympathetic coöperation, to other agencies will not be easy in view of the historic attitude of educators. Nevertheless, we read even

now of school credit being given for work of a useful nature performed at home; of agricultural schools in which the practical work is done on the "home farm"; of "part time" arrangements between shop and school for vocational training; of vacation reading being required and counted towards college credit; of home practice in hygiene being purposefully integrated with school instruction in that subject; of physical work of a serviceable nature being accepted in lieu of gymnasium training; of wage-earning employment being required as a necessary phase in completing courses in commercial training; and of coöperation between the school and the theater to the ends that the two forces may reinforce each other. These manifestations but foreshadow the more varied developments which are surely destined to appear when the larger educational vision shall develop.

Having defined its aims in terms of a sound social economy, and having differentiated

among various educational agencies as to the scope and character of their respective contributions to the totality of the educational process, the new education encounters a variety of problems of adaptation among the individuals and groups of individuals with whom it deals. The older education had a limited field of vision as to the social need it was to serve; its aims were relatively narrow, specific, and immediate. In the schools it ministered in the main to a restricted social class; hence, its programs were uniform and lacking in flexibility.

The large problem of social economy, as expressed in the ideals of democracy, is to enable each individual to make the most of himself, while at the same time contributing in as large degree as possible to the general well-being. There are distinct limits of an economic nature, however, to the social obligation to educate and otherwise to assist each individual towards self-realization. Moreover, it is certain that individuals vary enormously among themselves as to their inheritance of

capacities for the attainment of skill, insight, and ideal. As the possible scope and purposes of education increase, the boundaries of society's obligations on the one hand and the individual's capacities on the other come into view. A uniform program of education is no longer possible. To an indefinite extent programs must be adapted to varying groups.

Here we distinguish the subnormal in intellect and we modify programs of training to their needs. We shall yet do much also to assist the supernormal to outmarch our slow-footed courses of study. Again, we discover varying tastes and deep-seated interests, suggesting the possibilities of enriching society by the cultivation of special talents. We find many youths in need of systematic training for vocational competency — an education which can only be given by public schools; but vocational education must be as varied as are the occupations demanding skill and technical knowledge. The multiplicity of subjects has become so great within the field of the traditional school program as to force sec-

ondary school and college to provide endless forms of adaptation by allowing election of studies.

Below the college and secondary school is to be found as yet but slight adaptation in courses of study; but it is inevitable that great flexibility should develop here as well. This will not be confined to the field commonly occupied by the so-called school studies; it must extend into the as yet slightly explored regions of physical, moral, and vocational education.

It is sometimes urged that the demands of democracy require uniformity of educational program. There must be no class education, as in Europe, it is said. This attitude reflects the influence of certain famous misunderstandings of the Declaration of Independence and of the motto of Revolutionary France. In native capacity and in educational need people are unequal at birth and can in no way be made equal. An educational system, suited to the needs of democracy, must be indefinitely flexible in order that each may have before

him the educational opportunities which shall enable him best to serve society and himself. They who oppose the establishment of effective trade schools because they suspect that these tend to create class distinctions forget what sharp class distinctions are even now enforced by uniform programs of studies appealing only to those possessing unusual powers of abstract thinking.

A flexible system of education, indefinitely varied to meet the needs of different groups, must, of course, in a democratic society, simply establish open doors of opportunity. The son of the washerwoman must be able to go to the university if his talents justify it; and equally the son of the banker should be able to find his field of opportunity in a trade school, if his interests lie in that direction. Prescription and forced classification there must of necessity be; but only as determined by the incapacity of the individual to profit from a given type of opportunity. Such forced classification now prevails extensively in our undemocratic school system, and is the more indefensible because

of the limited range of educational opportunity offered in contemporary secondary schools and colleges. No extension of the range and scope of educational opportunity can operate to intensify class distinctions as these now prevail in America. A flexible system of educational opportunities will have the opposite effect.

To teachers and to those engaged in the training of teachers, the most interesting and at the same time most difficult of the problems of the new education are to be found in connection with the developments of effective methods of teaching, after general aims and questions of adaptation have been measurably settled.

Every person, in greater or less degree, possesses an instinct for teaching; while among every people at every period there exists a vast body of teaching customs which are readily transmitted from generation to generation. Under the conditions which prevailed until very recently, the combination of the teaching instinct with prevailing customs sufficed

to give a body of teaching methods sufficient for the existing needs of education in home, church, and school.

But the methods thus developed (the word covers methods of organizing known bodies of knowledge and experience for teaching purposes as well as actual method of presentation) were, naturally, unscientific; they lacked flexibility, and especially they were unadapted to the carrying-out of the nicer adjustments demanded when broader educational aims developed.

It was long ago evident to such educational geniuses as Comenius, Rousseau, and Froebel that in education, no less than in other forms of human activity, where custom played a large part, the letter was always in danger of being allowed to kill the spirit. Form was ever tending to take the place of substance. Methods of educating, taking their start in some period of rapid change, soon grew stereotyped and rigid. Modes of practice, inspired and projected by great leaders, were taken up by cults composed of persons unable fully to

apprehend them, and soon degenerated into crystallized forms and ceremonies.

It is now apparent that for the new education, teaching methods transmitted as custom products (social habits) will not suffice. It matters not that these should owe their origins to the genius of a leader, rather than to the selective action of time. So innumerable are the adjustments required by the new education, on account of its varied aims and possible adaptations, that only a body of method, based on a scientific study of the processes of the learning mind of the child as a practical reality, will suffice.

Efforts to evolve new and better methods on a basis of insight into the learning processes have given rise to much of the educational unrest of recent years. Naturally, the conservatives in education, like those in religion, politics, industry, and elsewhere, prefer the established custom procedures and resent all attempts to evaluate old methods and to devise new ones. Nevertheless, some progress is being made, some of it due to the " trial and

success" methods stimulated by loss of faith in old ways, and some of it due to newly acquired knowledge of child nature. We may say roughly that the program of primary education has already been materially modified by the newer methods, while in the more advanced grades and in the secondary school there has been a profound disturbance of thought and attitude, but as yet little of practical accomplishment.

The most marked feature of the newer developments in this field is the discovery that the older education had formulated all its conscious methods of teaching on one plane of learning capacity. All its music was composed, if the figure may be permitted, in one key. Subject-matter was organized to be memorized or learned by rote; and where the ends aimed at did not permit this, as in penmanship, the drill methods employed were strictly analogous to those of memorization. All subjects were taught in the same general way, and the only available means of testing learning consisted in examining memorization. Rarely was it

thought necessary or deemed possible to go deeper and to test the actual functioning of knowledge or habit in terms of life's larger utilities.

To many other processes of education, now consciously recognized, the older education indeed made contributions; but in an almost wholly unorganized and methodless way. Education through play, the self-active quest of knowledge, the subtle influence of suggestion in numberless directions, the upbuilding of ideals — these had their place; but on these planes of learning, there existed no text-books or teachers' manuals, no approved devices and methods, no testing of results.

It should not be a matter of surprise that in the general field of method the new education is encountering so many problems of readjustment. In a subsequent chapter attention will be called to the probability that, as between the methods of teaching based on forced memorization and drill, and those utilizing self-activity in large measure, there is a subtle but real opposition. If such is the case, the new me-

thods must in many cases be something vastly different from mere refinements of the old. They must be differently grounded and derived.

The new education will no more be satisfied with reliance upon a blind instinct of teaching in affecting the deeper reaches of the child's life than is modern medicine satisfied with only the instincts of tenderness, sympathy, and self-sacrifice in the nurse. Education through play, through the influence of personality, and through giving scope to the creative capacities will require its own basal methods no less than that other education which, in seeking results in the teaching of spelling, multiplication tables, and grammar, has produced the methods of drill and memorization. But such methods must be based on scientific insight no less than are the nurses' conceptions of aseptic cleanliness. The new education has as one of its large obligations to discover the various foundations of educational method.

We may, finally, consider the readjustments necessary in the public administration of the

new education. For, whatever be our convictions as to the proper sphere of government, we must admit that a large and probably increasing part of education will have to be carried on as a public enterprise. Public funds will be required to support it; and public direction and control must follow the employment of public funds.

But the administration of education by the State presents features of a peculiar character. Evidently, expert service will be more and more needed; but equally an intimate union of education with public sentiment and opinion will always be required. In the administration of public education, therefore, we find that the pressing problems of democracy are acutely in evidence.

No system of public education can long remain vital and effective if it does not have an intelligent and approving public opinion supporting it. The citizen's money must support the schools; a large part of the time and happiness, as well as sometimes the health and future possibilities, of his children are in the

custody of the teachers; and it is probable that the school will assert its responsibility in requiring that home education shall also be effective. Complex relations of this kind are possible only when intimate mutual understanding and confidence prevail. Democratic society seeks to procure these conditions by localizing the administration of public education, by giving the popular will free scope in selecting representatives on lay governing bodies, and by giving such laymen large authority over teachers and school practices.

But the new education cannot develop without expert service and the conditions which make expert service possible. Teachers must not only be well trained for their work; they must be, as far as practicable, chosen from the ablest members of the community; and they should work under conditions which make effectiveness possible. Teaching must become a profession, and an attractive profession. Proper selection of candidates for teaching, proper training, proper compensation, proper tenure, proper freedom from unwarranted in-

terference — these are but a few of the conditions essential to the expert direction of the new education.

Can democratic government produce these conditions? Can popular control resist the tendencies of professions to become bureaucratic and to alienate themselves from popular demands?

It is evident that to achieve the ends of effective administration, the new education will necessitate many readjustments of prevailing practices. Some of these are discussed in a subsequent chapter. Here it only remains to point out that to administer public education successfully will bring into relief and perhaps contribute to the solution of the problems of an expert, specialized service, working under and leading the popular will. Public education will require its expert service; but this expert service must of necessity be capable of educating not merely the children of each generation, but the generation itself. Educators must interpret their problems in terms of society as a whole. They must lead in the de-

velopment of chieftainship for no traditional or adventitious reasons, but by sheer ability to win confidence on their own merits. Educators must trust the public; and they must wisely fashion a public which they can trust. Publicity is but one of the instruments to this end; the creation of active channels of communication between specialists and laymen is no less important.

We cannot now predict the forms of organization by means of which a union of the services of experts and of the supporting attitude of the public is to be effected. It may be that for this purpose the school will have to be regarded as the primary unit of administration to a greater extent than is now the case. The city will require for financial and other general management of the schools a small central school board and the highly specialized services of experts; but, because in each school are to be gathered teachers and supervising specialists, it may prove expedient to create, for the district served by such a school committee, a council, representing lay interests

and capable of being made a means of diffusing knowledge regarding the aims, needs, and achievement of the school. By devices of this nature, it may prove possible to realize the coöperation which is indispensable to an efficient system of modern schools serving in, and supported by, a democracy.

II

THE NEW BASIS OF METHOD

THE study of the art and science of education to-day involves, among other phases, consideration of the learning processes as these are connected with the various subjects making up the curricula of our schools. The study of method may be approached from either one of two standpoints. On the one hand, in connection with the organization of the content and in the development of devices of presentation of the special subjects, such as the mechanics of reading, number work, writing, chemistry, French, drawing, and the others, we obtain the studies of special method; on the other hand, when the educational process is viewed less with reference to the mastery of special subjects and more with reference to the physiological and psychological processes involved, we have general method. In the former case the peculiar characteristics of various forms of

subject-matter largely determine method; in the latter, the main influence comes from a consideration of the educational ends to be attained, as these may be expressed in terms of habits to be formed, appreciations to be stimulated, knowledge to be acquired, and ideals to be developed. A study of the learning process, when special method is under consideration, tends to expend its effort on subject-matter; while the influence of the study of general method is to emphasize the powers and processes of the learner himself.

Historically it would seem to be true, except at rare intervals, that the development of the art of teaching tended to center about the thing which it was deemed desirable to have the child learn. Hence the processes of trial, experiment, and selection have tended to produce an elaborate body of method — method of organization of subject-matter as well as method of presentation — in connection with each one of the studies. Each division of mathematics, each phase of the study of the vernacular, writing, drawing, Latin, manual

training, history, each one of the sciences — in every case we find a more or less detailed and elaborated methodology. And running through it all we find one prominent characteristic: the organization of subjects for teaching purposes seems to have been effected by mature and scholarly minds which have made but grudging acknowledgment that the limitations and peculiarities of the child mind might have to be taken into account in making the learning process most effective. Only seldom, historically speaking, have textbooks been written or other organizations of the subject-matter of special studies been produced by those who, either by virtue of keen sympathy and intuition, or even owing to long experience, could enter easily into the interests, capacities, and points of view of children. And it must be remembered that it has been chiefly in the organization of the special subjects that, in the past, conscious method manifested itself.

Note how the adult and scholarly mind has worked in producing the teaching organizations of the special school subjects. In propor-

tion as knowledge has developed in each subject, underlying principles have come into view and logical system has developed. Through long experience and study the mature mind comes to grasp the general outlines and principles of a study, and, having found a few simple keys to the whole, which simplifies it for him, he immediately assumes that such order should be most effective in teaching children. Not many years ago the student of script letters was able to discern a few simple elements of which nearly all the letters were composed. What more natural than that a scheme of penmanship teaching (now happily obsolete) should be developed which would involve as the central feature of its method the complete preliminary mastery of these elements? Again, it is found that drawing in many of its phases involves the application of a few elemental forms; and, naturally, systems of drawing for children have been developed which require that years shall be spent in drill on these elemental forms. The varied processes of applied arithmetic may be compre-

hended in a small number of fundamental rules; the complexity of machines may be resolved into six or even two fundamental forms; the study of the plant world may be approached through the classifications which order and simplify it; and so on for each subject which enters into the schools. And in each case that logical order inherent in the subject has been seized upon by the adult maker of schemes of study as giving the most effective basis of method for teaching purposes.

So long as teachers failed to study the learning process as conditioned partly by the limitations and peculiar powers of the child's mind, it was natural that this should be true. To the discoverer and admirer of organization in the various divisions of knowledge, it was inevitable to think of these as exhibiting the most effective way for the young learner. If all penmanship may be reduced to a half-dozen fundamental forms, why not secure the mastery of these at the outset? If all reading involves the alphabet, and the ability to unite its members into untold numbers of meaning-

ful and meaningless syllables, why not give the first two or three years to drill on letters and syllables? If the mastery of tool processes seems to involve, sooner or later, a limited number of detailed and very special types of skill, why not strive for these at the outset, as has been done in certain types of manual training? There have been times when the study of a foreign language began and continued long with its grammar; when the study of literature was mostly a study of the lives of authors and lists of their work; when the study of music, at least in the schools, was mainly a study of the written technique of music; when the study of history was an attempted mastery of the dates and the far-reaching generalizations of history. We have seen the study of physics by beginners confined mainly to tasks in quantitative work, because the mature mind finds quantitative method so serviceable. Not long since the teaching of biology by many teachers was organized on the basis of a logical system beginning with the most elemental forms. While it may not be true that all of

our studies still exhibit these vices at their worst, it may well be questioned whether the studies as we have them organized for children, especially in the upper elementary grades and secondary schools, are not even yet primarily determined in their method by logical and other considerations quite external to the intrinsic capacities of the learner himself.

On the other hand, when the educator tends to study the learning processes largely apart from special subjects of study or apart from the bias which a too exclusive consideration of subject-matter seems to give, and more with reference to the child as a self-active organism, developing in a material and social environment which in itself is stimulating and educative, it is natural that the traditional school subjects should receive less consideration. For, under these circumstances, the educator realizes that, in any environment, a large part of the sum-total of learning is quite independent of artificial direction and manipulation. Nature has so equipped the child with instincts and impulses that he literally must

learn. A thousand physical adjustments, some of them very complex, he will learn even if deprived of human example. In the presence of human example the mere exercise of the instincts of imitation and invention gives him speech and numberless other social habits and appreciations. During the years ordinarily given to school life, the youth will, if a savage, or if loose among his fellows and his elders, acquire a vast range of useful habits, significant knowledge, and influential ideals. For all this learning no schools need be provided, no teachers' salaries paid, no textbooks or schemes of study organized. Even more significant, there are required no long hours of confinement at hard desks, no penalties and rewards, and no final examinations. It is all part of the natural growth process, as spontaneous as the play of animals or the flowering of plants.

Viewing education from this side, it is natural that the enthusiastic man who is little concerned with special subjects should desire to make all education simply a somewhat wider and somewhat more directed form of that edu-

cational process which nature organized for human beings long before schools were dreamed of. Method, from this standpoint, becomes less a matter of the fine adjustment of this or that bit of external knowledge or process of acquiring skill, than of providing a rich environment and a field for free expression of native powers, to the end that the child will, through sheer force of the unrestricted, but guided and aided, growth process, reach the higher levels of habit, appreciation, knowledge, and ideal. Under the influence of this conception, the belief develops that in each department of human knowledge and attainment there is somewhere an order of approach and development which closely corresponds to the natural growth process and which is the most effective teaching order on the one side and learning order on the other. The essence of method, as here conceived, consists in putting the child in an environment of suitable stimuli and then allowing the natural learning powers to do their inevitable work. Not the perfect organization of subject-matter accord-

ing to logical schemes, it is asserted, but the presentation of it in ways that correspond to the child's native powers, is the function of true educational method. If the child has inherently a thirst for knowledge, why may we not lead him into an environment of knowledge, geographical, historical, or scientific, and leave him free until his natural demand for aid in organizing it shall again call on us for additional suggestion? If the unspoiled child craves expression through speech, through drawing, and through constructive activities, why should we organize this or that scheme which is denaturalized by adult experience rather than provide him the tools, the objects, and the suggestion which will suffice to draw forth his own activities? So questions the theorist in this field, but it must be admitted that he can as yet point to no well-developed scheme of instruction based on his theory.

The influence of this conception has, however, been sufficiently great in recent years to produce considerable modification in educational method. In some slight degree it has

tended to introduce new kinds of subject-matter. More important for present purposes, it has tended to affect the methods of organizing and presenting the traditional subjects — for, after all, the schools may not aim at the complete educative process, and their field is largely determined by the traditional organizations of knowledge and skill which we call subjects — and in providing certain new ideas as to educational aims. In much of primary teaching the logical organization of subject-matter has largely given way to a teaching order, empirically determined, which is sometimes called psychological or natural, and which is unquestionably more effective and economical. With regard to the subjects more adapted to older children we hear it constantly insisted that we must search for a more pedagogical order for the reason that the older and more artificial order of organizing and presenting subject-matter fails to interest pupils, fails to produce a valuable permanent result, and tends to bring school education into disrepute.

It can easily be shown that in the primary schools of to-day children are rarely taught penmanship, reading, and number according to the more strictly logical methods once in vogue. Drills on the alphabet and on the elemental forms of letters as used in writing are not necessarily abandoned, but they follow a considerable time after the pupil's introduction to printed and written words as something nearly allied to the objects about which he thinks and cares. Primary teaching has found avenues of approach from the object, through the picture and other concrete representation, and on to the purely abstract symbol which, whatever their inherent lack of system, as that appeals to the adult mind, constitute a far more effective order for the naïve powers of the young learner than any which preceded. In the teaching of drawing we are now in the midst of a transition from the logical, uninteresting, and, for the majority of children, less effective formal processes to more natural processes (natural from the standpoint of the child learner), but which are still

experimental. The same transition is in process in manual work. It is recognized that the child, left to himself in an environment that is full of suggestion towards constructive activity due to the presence of tools, the opportunity to use them, and the suggestion of elders at work, becomes spontaneously an imitator and develops powers and interests which no formal processes of teaching can give. Left to himself, the child uses tools, first with little purpose, then in a deliberate attempt to realize aims and projects partly due to suggestion and partly due to invention. But, as educators clearly see, the forms of manual training which have already largely become traditional take little account of childish capacities, and derive their chief principles of organization and method from the carefully studied experiences of mature workers. These forms of manual training not only do not encourage naïve childish tendencies, but even flout them by laying an embargo upon the child's native desires to experiment and to try to make things which have for him a genuine significance in use.

Recent developments in the teaching of mathematics point also to the influence of the conception that logical organization of subject-matter is not a final basis for the method of the teaching order. For it is believed by the proponents of the so-called Perry movement that the central deficiency in the teaching of mathematics at the present time is the too great insistence upon the logical and abstract, to the exclusion of the concrete and applied. Teaching geometry largely through its applications certainly appears at war with the simple and orderly teaching that is based on the strictly logical organization of that subject; but experience may show that there are many paths through applied geometry which reach the real goal of learning more effectively than the traditional approaches. Among the sciences, it is apparent that in the best teaching of nature study, modern method is coming nearer to a more natural order, as concerns the learner. It is noteworthy that biology in secondary education, whether under that name, or as botany and zoölogy, has attempted many

schemes based upon the logical organization of subject-matter which appeals to the mature scientist, but without success; and that in the best secondary schools it is now following various experimental orders which are frankly claimed to be psychological or pedagogical in their nature.

Illustrations might be multiplied. On both sides of the question are camps of those who teach geography, to some extent teachers in one, and geographers in the other. The historians have given the world new definitions of history and new tests of its organization, and are insisting that those who teach history to children shall accept their criteria; and educators who think they understand children are waiting expectantly for the man who is at once historian and also learned in, or intuitive of, the ways of growing youth. In some respects a natural method in selecting and presenting the materials of literature has been found for all the grades; but so far it is not believed that the American secondary school shows traces of this influence, though the English

secondary school has felt it to some extent. In the teaching of modern languages there are methods called natural, but whether they are actually pedagogical is still a question of fact.

The foregoing account presents in outline two great and in large part opposed theoretic foundations of method. The first grows out of the exclusive consideration of those phases of human experience which are chosen as the subjects of school education, and is primarily characterized by the logical organization which develops in the mind of the adult student and the most inclusive thinker; this logical order and full content modified, reduced, and diluted only where painful experience renders it absolutely necessary to make certain accommodations to the child's immaturity (or stupidity, as some are prone to think). The second represents an attempt to utilize to the full the possibilities of the learning processes which are a part of the natural inheritance, the teacher acting as a guide, example, and purveyor of

opportunities for learning rather than dictator of content and method. In the first, the thing to be taught determines method; in the second, natural processes of learning claim chief attention. The ultimate ends are not greatly different; under both theories there is substantial agreement as to the elements of the social inheritance whose mastery must be made the end of school education. The essential opposition lies in the methods of attaining these ends.

The educational literature of the day abounds in criticism of each theory and especially of the observed results of the application of each theory. It is believed by many educators that schemes of teaching built largely through study of subject-matter are failing to produce results. Especially is this believed to be true in the field of secondary education where the influences of recent pedagogical thinking have, as yet, hardly been felt. It is contended that formal education does not function in any kind of genuine experience, or that it functions abnormally. Faulty method

produces mental sterility, and compels the children to forsake the school in order to gain contact with reality, as that answers to their instinctive demands. In some quarters it is believed that many of the evils growing out of wrong methods of teaching which take little account of the natural capacities and limitations of children are insidious in their nature and, detected long after the harm has been done, cannot be traced to their real cause. Good ground can be found for the assertion that the too logical organization of subject-matter (which means, in effect, that it becomes too much removed from the processes of learning on the natural level) may be responsible for a subtle arrest of development in the mental and moral nature of the child, comparable, in its results, to premature and maladjusted physical labor on the body. Attempts at learning carried along in opposition to the natural processes result finally in a paralysis of interest and an incapacity for spontaneous and active effort in the fields of human experience involved. Hence the seeming paradox that we

may, by extensive teaching of English literature (in ways remote from natural), destroy all taste and appreciation for the kinds of literature which we teach. Hence the probability that modern methods of teaching science in secondary schools may, except in a few cases, destroy the native curiosity and interest which, if permitted or encouraged to grow in more natural ways, might result in permanent increase of pleasure and capacity in these fields. Hence the observed fact that wrong methods of teaching religion and morality, methods themselves the outgrowth of too exclusive consideration of the subject as it appealed to mature leaders and thinkers, have operated so as to stultify true development in these directions. In general the criticism is repeatedly advanced that the limitations of a pedagogy built largely on considerations of the logical order of subject-matter are not found so much in the immediately recognized difficulties of teaching as in the permanent arrest of development which ultimately supervenes. From the standpoint of the modern

educator there is something quite pathetic in the ease with which children can be artificialized in the educative process. They can be taught schemes of language, literature, science, history, and other studies with apparent good result, and can be successfully crammed for the tests which examinations provide. It is only when we consider the deeper significance of it all, say the critics, in producing individual and social arrest of development and ultimate decay, that we can realize that nature has established certain paths of educational procedure which cannot be greatly ignored except at our peril.

On the other hand, schemes of method based more nearly on the supposed natural process are frequently open to the criticism that the interest they evoke is temporary rather than permanent, that they fail to produce the concrete results in habit and knowledge which the world demands, that they tend to make of the youth a barbarian or "natural savage" rather than the refined and molded man demanded by modern society. Where the move-

ment for a less artificial education has had its effect on method, it is claimed that there has been a decline in certain measurable kinds of efficiency. Children read and write less well than formerly; their arithmetical knowledge is imperfect and unusable; their knowledge of history and geography is vague and mixed with much error; their execution in drawing, language, and manual work is slipshod and characterized by low ideals and lack of standards. What does it profit a child if he have great interest in learning to spell if he never learn to spell? As was said before, primary teaching has unquestionably justified the change in the basis of method; but it can hardly be said that the same is true of the attempts to reorganize the subjects of the upper grades and the high school.

To the criticisms of the second theory it may be answered, of course, that any methodology based on a consideration of the natural learning processes must be a matter of slow growth and that we can hardly expect any great achievements until, in the upper schools,

methods shall have been experimentally worked out, as they have already been worked out in the primary schools. But this is small satisfaction in view of the fact that it is especially in the maturer pupils that the world demands some tangible evidence of the results of education.

Where, then, can the practical educator of to-day find a sound basis of method, one that will combine a maximum of good with a minimum of evil? The writer believes that a careful study of the best educational experiments of recent times and of the processes involved in procuring excellent results in the physical, moral, and vocational education of individuals and groups in the past will show that in all best method there is involved a conscious or unconscious recognition of the two large principles discussed above, but each in a definite relation to particular stages of the learning process. In individuals or among groups of individuals education has become sterile, cramping, and repulsive when its votaries have

too greatly intruded the adult point of view and the mechanical forms of adult thinking on youth; and on the other hand, when enthusiastic teachers and educational prophets have been able to supplant traditional subjects and methods with others supposed to lie near to the lines of natural and unforced development, there has been a failure to realize the habits, forms of skill, and definite knowledge which social conditions demand. But whenever and wherever it has been possible to combine the two principles it would seem that education has more nearly approximated a maximum of efficiency.

On the basis of this accumulated experience it would seem, for example, other things being equal, that in organizing human experience for the purpose of teaching young children, the pedagogical rather than the logical order should receive consideration, but that with increasing maturity of mind there might be a gradual shifting of emphasis to the logical. Again, other things being equal, and age being left out of consideration, it would appear

that the early contact of the child or youth with a new field of human experience which is to be made his through the learning process, should be governed by pedagogical rather than logical considerations. Again, within any study which is long pursued for the sake of a considerable body of habit or knowledge, it would seem desirable to vary the procedure from natural to logical and the reverse around each fairly large unit which might develop within that subject-matter. The reasons for this shifting from one organizing principle of method to another lie in the fact that underlying all formal, logical, and highly systematized learning is a substratum of kindled feeling and interest, crude first-hand knowledge, and aspiration and ideal such as spring from large self-activity. These rough, undifferentiated, and pervasive qualities are best developed by those forms of learning which approximate the spontaneous. They seem to be basal to permanent interests and to the fullest development of organized and systematized habit and knowledge to be acquired later. The idea might

be expressed in another way by saying that the true educative process consists in first providing abundant opportunities for that development, in connection with any study or practice, which comes from the largely spontaneous exercise of the instincts and other natural capacities; and then in proceeding to build on this foundation the habit, skill, knowledge, and ideal which are demanded of civilized conditions, and which require what we term artificial organization on the one hand to correspond to artificial requirements, or logical on the other as best exhibiting the grasp which experience and insight have attained in the world of knowledge.

A few examples will make this clear. The child in a stimulating environment of implements and suggestion naturally seeks to express himself through drawing. His early drawing is crude, imperfect, and shows lack of knowledge of elemental principles. But in freely expressing himself the child gains a body of experience and some skill which may be fundamental to later development in this

direction. Play, of course, provides an analogous situation in the fields of physical, social, and vocational development. Or take the case of a boy provided with the means and suggestion for work in physical science. Left to himself such a boy reads, experiments, procures crude results, all of which may not apparently advance him far in the systematic study of physical principles or in the acquisition of skill of manipulation. Yet there is good reason for suspecting that the boy who does not have opportunity for this stage of development (which is not now allowed by the schools) comes to the systematic study of physics with an insufficient background of experience and interest, and these cannot be developed by the logically arranged courses of experiments and study of principles found in the schools. It may well be questioned, in view of the results in our schools, whether the systematic study of literature in upper grades should not be preceded by an extensive provision of opportunities for reading, largely along the line of the natural tendencies, exercised, of course,

in an environment of wholesome material and suggestion. Similarly in the field of history. To the child, as to primitive man, history is more than a cold account of facts; it is something which involves feeling, imagination, ideal. Left to himself the child may tend to gather his experience of the past and remote from song, picture, tale, myth, novel, and epic as well as from the books which offer more exact statements of fact. Whether we study the lives of peoples or the biographies of individuals, we have yet no evidence that the approach to history through the above channels is not the most natural and, in the long run, most effective. The danger, of course, lies in the fact that so many individuals are allowed to stop before they have acquired some of the methods and content of exact historical study. But no less great at the present time is the danger that young children will be fed on historian's history, which is good for the historian, but may be husks for children. Illustrations might be multiplied from other subjects of ordinary curricula.

Can we, then, say that we have already with us to some extent a new basis of method? Can we not in connection with any study or pursuit of the schools recognize that what might be called the processes and methods of spontaneous learning require recognition up to a certain point, after which a transition should be made to the methods begotten of mature human wisdom acting on past experience? It seems to the writer that we have already a partial recognition of these large facts, but that in connection with certain schools and types of education we refuse to allow ourselves to escape the habits and prepossessions of tradition, or that the school teacher allows himself to be enslaved by methods developed in schools where mature people study. A great difficulty lies in the general unwillingness to make education an experimental field of applied science and art. When, in any given subject of study, we have a carefully worked out logical organization, it involves a courageous and adventurous disposition to depart from it and to seek in the wilds

that organization which will carry more of an appeal to, and be more effective with, the beginning student. In the absence of any complete or helpful knowledge of genetic psychology, every teacher who would utilize the natural processes of learning as foundations for later systematization of knowledge and habit is obliged to experiment, and sometimes almost blindly. Here the methods of trial and error and selection are yet largely necessary.

It is, however, essential that the educator get some conception of the principles involved. Doubtless we can say of much American primary education that it recognizes the principles, so far as small children are concerned. Yet it is of importance that we recognize that, after all, it may not be a question of age that is involved so much as the relation of the content and development of the mind to a study or practice (or, more significant, the large units within these) which is about to be taken up. It may be that even the fairly mature mind, approaching a unit of

knowledge or practice with which it has thus far no connections, should make its first approaches largely along the planes closely related to natural learning. It may be that the chief weakness of our secondary education is that it fails to make allowance for a modicum of natural learning before the highly systematic organizations of material are taken up. It may be that the constant complaint in high school and college of the immaturity and unpreparedness of the student has its real source, not in the lack of technical skill and specific knowledge, but in the unpreparedness of attitude and interest and basal experience which in so many cases are not the fruits of our present methods.

No basis of method can be successful in a permanent way which does not recognize, on the one hand, the fundamental and pervasive character of the learning processes which nature developed long before the advent of modern culture; nor, on the other hand, the imperative demands of modern social

and cultural life in regulating, organizing, and rendering efficient these same learning processes along specific lines. It should be apparent that the logical organization of subject-matter represents something very useful as a basis of method, if not introduced too prematurely in the mental and moral evolution of the child. What is needed is care in providing the child, as a preliminary to learning on the artificial level, with an abundance of experience on the natural plane. Sometimes the home does this, and it is easy to see that the more immediate industrial life of the farm and the shop in past centuries was a rich source of this basal experience. But if the home does not provide it, whether in cultural, social, or vocational directions, then the school must do so, in the interests of effective education. The new basis of method involves, on the one hand, a guarantee of this fundamental experience as a basis of motive, interest, and first-hand knowledge; but it also involves the necessity of building on this foundation a structure of organized habit, systematized

knowledge, and efficient ideal, which subsequent course of learning may very fully involve the logical and artificial organization of subject-matter.

III

WHAT IS LIBERAL EDUCATION?

Is liberal education losing in power to attract youth? This is alleged in many quarters. In college and secondary school, the studies which wear a vocational aspect are being preferred, we are told, to those that minister to the larger ideals of life. Education toward practical achievement is being sought by an increasing number of students, while the numbers of those seeking in the humanities the elevating influences which a higher civilization needs do not increase proportionately. The advocates of an effective vocational education are not infrequently embarrassed by the charge that they are promoting the decay of much that makes for kindled ideal, sympathetic insight and personal culture. They have not always the hardihood to suggest that perhaps the waning of interest in liberal education may be occasioned largely by lack of adaptation in its own instruments and methods.

May it not be possible that the demand for the essentials of liberal education is no less strong than formerly, but that ancient ways of meeting it no longer suffice?

Clearly, better foundations are needed for liberal education in school and college. Professors and teachers of the liberal arts still reflect in a measure the ideals and methods of the cloister and of the leisured world in which their calling found its aristocratic and exclusive origins. Quite naturally, they are usually strong in their faiths, and resentful of scrutiny into the social validity of their purposes; and it would be surprising if, under the circumstances, they proved themselves able to evaluate in any fundamental way the effectiveness of their means and methods in promoting culture and social worth under modern democratic conditions.

Schoolmen — teachers of the liberal arts in school and college — can be credited with a fine devotion to the study of those fields of knowledge in which their scholarly interests lie; but, with rare exceptions, they have not

been students of teaching. They have mastered subject-matter, the means of education, — but not pedagogy, the art of effectively applying the means. They have not yet evolved a satisfactory philosophy of liberal education to supersede the store of educational dogmas, psychological misconceptions, and cultural mysticisms which they inherited.

Yet our schools and colleges are thronged as never before by those seeking or sent to seek higher education. Over a million boys and girls, under no legal compulsion, now pursue the traditional types of liberal learning in public secondary schools in America; and the men and women in the colleges are to be numbered by hundreds of thousands. But much of the work done in these institutions is without clear purpose, and is therefore largely futile as regards the finer ends of liberal education.

Efficiency in education, as elsewhere in the regions of conscious effort, involves on the one hand a fairly clear conception of goals to be reached, and on the other a degree of cer-

titude as to the probable functioning of the means and methods employed. Our institutions devoted to liberal education are not able to apply to themselves tests of efficiency along these lines; they have no acceptable formulations of their purposes; and equally (and partly as a consequence) they have no sufficient evidence as to the efficacy of the procedures which they use. These schools receive the picked personalities of the community, from the standpoint both of natural inheritance and of social surroundings. Intelligent men and women naturally expect the schools to enhance in marked degree the civic and cultural possibilities of these young people. Neither parents nor public are satisfied with the results. In spite of the large attendance in school and college, faculties allege that there is a waning of interest in intellectual pursuits. Students are perfunctory in their devotion to serious studies, except to those appealing to practical motives. Vocational education seems often to have the stronger claims on attention and interest. Because of the greater efficiency of its procedures

it may, indeed, tend to attract students at an age when, for them, a further liberal education, if effective, would be preferable.

Vocational education is capable, at best, of making only partial and somewhat incidental contributions to liberal education, no matter how we conceive the latter. A democracy surely needs liberal education, widely developed, as something distinct from vocational capacity. The lawyer can be given, somehow, interests in music and art quite unconnected with his vocation; the farmer may have his tastes for literature, sociology, or astronomy; and the machinist may touch with some appreciation, in his leisure hours, such remote fields as the plant-world, or the interior decoration of a home.

May we not, in fact, still find it desirable to defend, in a degree, liberal education in terms of its differences from vocational education; not indeed in disparagement of the latter, as the cloistered schoolman has done, but as furnishing the vital complementary factors to it? Man, to be of use to himself,

and to society, must be a producer of utilities of some sort; and it is folly to disparage this function, or to deny its importance in any sane scheme of education. But man is also a consumer; he is a user of the endlessly varied output of the labor and inspiration of others. To produce little and consume much is a characteristic of parasitical forms of life; but to produce well and consume badly gives us, in the human sphere, narrow, illiberal, self-limiting, and ultimately self-destroying individualities. The modern world insists on specialization in productive activities as the keynote to efficiency; but it must learn to insist equally on the democratization and universalizing of fine consuming capacities as a condition of maintaining the larger forms of social life. One of the vices almost always inherent in certain forms of social aristocracy, is the artificial specialization of some consuming functions.

Are there not revealed in the distinctions here presented the clues to the methods and functions of liberal education? Man stands in a twofold relationship to the world; he is a

producer of utilities, and also a consumer. As producer, he writes books, or constructs machines, or produces wheat, or builds houses, or heals the sick, or conveys travelers; and for any of these activities he can be trained. As consumer, however, he is inspired by books, served by machines, nourished by bread, sheltered by houses, healed by physicians, and carried by railways; and for the wise and profitable exercise of these activities he can also be trained. He specializes in production; but manufacture, and printing, and steam enable him to universalize in consumption. What we call the social inheritance — knowledge, ideals, institutions, inventions, all capitalized in more or less permanent forms — is at the disposal of any qualified user. In a world of specialized producers, each person sufficiently trained in utilization has for his enjoyment and service endless stores of science, of art, of religious ideals, of political capacity, and of economic resources.

The world needs able producers, and education to that end will never be amiss; but it

also needs, as a condition of social well-being, consumers who can utilize material and spiritual products to their own advantage, and also to the advantage of those who are of high grade among producers. Do I buy inferior newspapers, when better are available? I not only injure myself, but I lend my influence to lowering the standards of newspaper production. Does one prefer cheap and ephemeral fiction to the standard writings of the great masters? Not only does he fail to realize his own best good, but he becomes measurably responsible for the failure of other potential great masters to reach the stage of high creative work. Do we, as a people, reward with our approval and patronage unscientific medical attendance, conscienceless political service, and life-impairing industrial activity? We pay, as a rule, our own penalty; but society is also permanently the loser in scientific medicine, in political honesty, and in genuinely efficient industry.

Is not the essence of liberal education to be found in the conception of man as a user?

Is it possible to call a man liberally educated, who, as a user, habitually makes inferior choices from the fields of art, literature, religion, applied science, convivial association, political leadership, and travel? Fortunately, we no longer hold the older notion that culture is inseparable from certain specialized forms of appreciation, such as ability to read Greek, speak French, recite sonnets, or discuss the latest fiction; and we are slowly learning to conceive it as something deeper than the mere possession of etiquette and a set of conventions.

The liberally educated man of the twentieth century will not be the member of a narrow cult. From many quarters will it prove possible, as a famous university president has told us, to derive the training and experience which make for liberal education; and it is futile to expect that all liberally educated men shall exhibit powers of appreciation in the same fields. Life is short, and the world of ideals, knowledge, and specialized service grows constantly larger. If all men read, we

are under obligation to seek to produce better standards of reading; but this does not mean that we shall bar from the ranks of the liberally educated, on this account alone, the man who has no Latin; nor he who, perchance, may not have read Browning; nor even one who frankly confesses a general distaste for classical literature.

Perhaps, in the more democratic society of the future, we shall find more satisfactory universal tests of liberal education in those regions of activity where large numbers have social contact. To-day we all buy and use pictures — in newspaper, magazine, moving-picture show, billboard exhibition, and, less commonly, in art gallery and in the household; how much of liberal education for this purpose can a more purposive system of school training give us? We are all users of the output of the modern loom; according to the character of the demand, this output may be prevailingly flimsy, inartistic, unhygienic, and the product of shop conditions which promote poverty, ill health, and low morals. Will not

right ideas of liberal education insist on elevating these conditions, and socializing this form of consumption? Again, that field of social activity which we term politics has evolved a form of specialized service for which compensation is given as in other fields. Voting means simply collective employment of this specialized service toward the performance of particular functions. In a democracy, it has seemed desirable to allow large numbers to share, directly or indirectly, in the employment of public servants. The essence of general civic education is to produce good employers of civic workers, that is, persons who will have a fairly clear conception of the task to be done, and who will know how to choose efficient and honest employees. From this standpoint, shall we continue to be able to call a man liberally educated for the conditions of modern life who manifests incapacity and professes indifference in exercising his social responsibility in the joint purchase of expert political service?

Now, if the conception of liberal education here put forth is valid, it is necessary that we realize how far the methods of modern academic training are alien to it. Not so much, perhaps, is this true in professed purpose as in methods and results. A careful examination of the pedagogic practice (largely traditional and customary, of course, rather than consciously purposive) of secondary school and college of liberal arts will show the persistence of methods derived rather from an ancient vocational education, and ill serving the purposes of liberal learning.

At bottom, it would seem that popular objection to so-called liberal education rests largely on a widespread, though seldom articulate, conviction that it is not liberalizing. Does the study of the historic "humanities," as carried on in a modern atmosphere, produce the "humane" man, — the man who, as in the olden view, saw profoundly, thought deeply, sympathized widely, and became a blessed source of high ideals, correct thinking, and benign sentiment? Are our high

school graduates liberally educated to utilize and thereby to improve service in the making of books, the preaching of sermons, the nurture of children, the policing of cities, the administration of charity, and the presentation of plays? Is the organized training of the average college of liberal arts (not the college life, since often, by chance or design, this is unquestionably liberalizing) such as to produce high-grade appreciation and effective powers of utilization in the fields of citizenship, art, social intercourse, religion?

It seems highly probable that, because of the prevailing haziness of thinking regarding the valid and practicable ends of liberal education, there is ineffective organization of means. What, for example, has the obligatory study of algebra or geometry on the part of ninety-five per cent of the more than half-million high school girls in America to do with their liberal education? Some seventy per cent, probably, of all boys and girls in our public high schools are constantly studying Latin, that ancient and extolled instrument of lib-

eral education; but, as commonly studied, by grammatical methods, and without persistent interest, what part does it play, except in rare instances, in the liberal education of American youth? These subjects, it will be said, are prescribed merely as the preliminary instruments of a later liberal education; but what is this? Are the instruments ever actually used, and with what effect? Does such education, in truth, "function"? where, and to what extent?

Again, the large purposes of science-teaching, enunciated at intervals since the days of Spencer and Huxley, are acceptable and admirable from the standpoint of liberal education; but in spite of laboratories and innumerable courses in college and secondary school, do not these purposes still remain largely unrealized? What, after all, for the average youth, has the prevailing study of physics, of chemistry, and of biology to do with liberal education? The methods currently employed are those of formal vocational education; high school and college

teachers organize their work as if their sole business were to prepare forthcoming specialists in teaching, medicine, and engineering. Once in a generation each institution may get a real teacher of science from the standpoint of inspiration, insight, culture — in a word, liberal education; but the rank and file are technicians only. The popular verdict is that science, pure or applied, is not yet in practice a feature of liberal education.

The same criticism applies to other subjects. Our secondary schools and colleges multiply courses in history. We all feel, vaguely, that in history, if anywhere, should be found valuable means of liberal education. But scientific methods, an insufficient pedagogy, and a prevailing lack of social insight (perhaps better called sociological insight) have contributed to the sterilization of this subject as a soil for the growth of ideals, sentiments, and useful social knowledge.

Obviously, we need a revision of the philosophy and methods of liberal education. Surely, no one can contend that in a world

growing daily richer in all kinds of resources, — spiritual, intellectual, esthetic, material, — and in specialized service, we do not need education towards wise utilization on a high social plane. The democratic and universal character of this education must be assured. Let it not be forgotten that extra-school agencies, and these often of an irresponsible sort, are always active in leading the consumer towards anything but the finer forms of utilization. The Sunday newspaper and the cheap magazine become the literature of the majority; the billboard, vaudeville, and moving-picture show give to the people not only romance, but art as well; the convivial association of the drinking-place is substituted for more refined and restrained intercourse; and advertising, which now costs annually far more than the total outlay for all forms of organized education, incessantly fashions tastes and standards in the use of clothing, ornament, food, and habitation, as well as in literature, music, and political service.

Many of the foregoing agencies are good;

but they are seldom capable of producing from within themselves the higher standards, and they often fail to lend themselves to the wider social purposes needed by the age in which we live. The school is the one institution under more or less of public control, which is charged, in so far as it deliberately ministers to liberal education, with responsibility for the elevation and diffusion of higher standards of appreciation and utilization. A purposive program to this end is a present educational need. When it shall be evolved, it seems probable that, in comparison with it, our pitiful drills in algebra, Latin, textbook physics, ancient history, elementary logic, and English composition, will make a poor exhibition as supposed means of genuine liberal education.

How can such a program be formulated? It seems to the writer that the first condition is a statement of the aims of liberal education in terms of demonstrable utilities, — a statement which shall consist neither of mere de-

scriptions of means and subjects of study, nor of vague and perhaps mystical generalizations. "Culture," "mental training," "esthetic appreciation," "the scientific spirit," are all too uncertain, too complex, and perhaps, in their general aspects, too impracticable of realization, to serve usefully as formulated goals of educational effort; and, on the other hand, subjects of study, the so-called liberal arts, as condensed, formalized, and desiccated by the schoolmaster, in textbook and manual, are rarely, in themselves, utilities, but merely instruments or means. It may be desirable that a high school girl should be induced or compelled to study algebra, but surely this should not be for the sake of the algebra itself; and it is educational faith and dogma, not certitude and science, which now declare that out of such study she will emerge keener of mind, stronger in self-control, or elevated in useful ideals. As found in practice to-day, liberal education directs its efforts towards mastery of certain subjects; these are certainly only means to further ends, which are either not

yet defined or rest largely on a basis of tradition and mysticism.

But modern education should prove equal to the task of discovering and formulating, as educational ends, a large variety of interests, forms of appreciation, and powers of utilization, all having worth to the individual and to society. Having found valid and attainable aims, it could then develop ways and means of realizing them.

A few examples may indicate what is here meant. In the study of music, proficiency in execution can be attained by but few; but fine appreciation should be possible to many. Might not a program of music-teaching in secondary schools be devised with the latter end only in view? It is doubtful if we yet have any tested methods for this purpose; but these would follow a definition of such purpose. Again, suppose it were made a controlling end of certain civic education in the high school to produce a fairly definite attitude toward, and comprehension of, the problems of the joint employment of public

servants: namely, voting. What kind of a pedagogic program could be devised to that end? To take another example, what could a college do if it sought to evoke by educational means, not the scientific attitude in general, which is at best a questionable possibility, but a constructively scientific attitude toward the modern reporting and publication of alleged news? Or if a high school were to seek to elevate the consuming capacities of its students in the field of the drama, would its faculty provide for an analytical study of Shakespearean plays, or would it strive to evoke fairly good results through amateur playwrights and actors from within the student body itself? Again, how shall we give to the youth who is to be a future householder, taste in the choice of material surroundings — by the study of formal drawing and physics, or by the exercise of the constructive interests of the amateur furniture-maker and interior decorator — the work of the manual-training shops?

The second condition governing the formulation of a more vital program of liberal edu-

cation, as defined above, would seem to require a lessening of the aloofness of such education, as now carried on. An ancient type of spiritual-mindedness was clearly characterized by its contempt for worldly things, its insistence on the all-importance of things beyond this earth; our so-called liberal education preserves even yet some cloistral aspects, in its distrust of worldly things, its shrinking from too close contact with actualities of the present. Perhaps this attitude was desirable when culture of any considerable degree was necessarily the product, as well as the possession, of an exclusive and leisure class; and, just as the modern world is richer, in all probability, for the monastic detachment of the churches which permitted the ripening of certain social tendencies, so, possibly, an exclusive ancient culture has fertilized modern life. But what is here called liberal education not only ought to be democratic and popular: it is, in forms good or bad, actually that to-day. The school may ignore its responsibilities; other less disinterested agencies will continue

actively at work. All people in modern society are being subjected to never-ceasing influences which debase or improve their consuming capacities.

A system of liberal education which maintains old traditions of intellectual or social aloofness cannot serve well under modern conditions. Our academic studies are, on this ground, open to criticism. Many of them are organized and presented too much with reference to their "pure" aspects — that is, without regard to their applications in contemporary life and activity. As a consequence, they fail to "function" in life, social and individual, as it is now lived; that is, the results in terms of ideals and knowledge in action, namely, in "works," are not realized.

Can we not devise a system of liberal education which will find its foundations in the best things of the here and now? Literature and art are all about us; science and faith offer their daily contributions; history is in the making to-day; industry pours forth its wares; and children, no less than adults, are sharing in the

dynamic activities of contemporary social life. Not in the things of the past, but in those of the present, should liberal education find its beginnings as well as its results. Fortified by the resources, interest, and insight thus obtained, it can be made to embrace areas of culture and power which are relatively remote and abstract.

Cannot our teachers of the liberal arts, while holding their high ideals and conserving their refined interests and tastes, yet keep themselves in vital contact with the world of people and of things in which their real work is to be accomplished? Is any other course open to the supporters of a liberal education which shall meet modern requirements of pedagogy on the one hand, and of democratic society on the other?

IV

WHY STUDY HISTORY?

THE citizen of the modern state has, as his chief occupation, the getting of a living. He finds himself, however, a member of a very complex society, to the operations of which he is supposed to give a certain amount of time and energy apart from that demanded for his vocation. He has his assigned rôle in the social drama; but on the modern stage of democracy he is in effect also obliged to assist in deciding on the composition of the play and in dictating the conditions and methods of its performance.

The royal rulers of the past, if they were wise, gave painstaking and sometimes fierce attention to the education of the princes who were to succeed to the responsibilities of governing. Modern democracies do not ignore the need of educating those who have final authority in government — namely, voting

citizens; but available evidence seems to indicate that they are far from having developed scientific programs for such education. The public school everywhere makes possible, indeed, the ready diffusion of information. Reading, writing, and familiarity with books, together with the ready availability of cheap printed matter, have developed on an extensive scale the possibilities of collective and fluent, even though superficial and unstable, thinking. But there is as yet scant training and instruction in public schools (and hardly more in private schools) that is purposeful and scientific to the end of forming right social habits, of evoking useful social ideals, or of fixing serviceable social knowledge. These important educational purposes are as yet served largely by extra-school agencies such as the press, and innumerable voluntary organizations, few of which are wholly disinterested. Our schools hold aloof, partly from fear of invading fields wherein take place the conflicts of partisanship, but also from ignorance as to how purposeful programs of broad and

effective civic education can be worked out and applied.

But the public is not satisfied with the inadequate civic education given through the schools; and now the schools themselves are exhibiting symptoms of wholesome discontent. American public high schools with their million and more pupils, including a very large proportion of those of our young people who are fitted by nature and opportunity to assume leadership, are being appealed to as the responsible agencies in training for citizenship. No thoughtful person can escape the conviction that our secondary schools ought to be in peculiar measure the meeting-places wherein should be developed the attitudes of mind, the ideals, and the types of insight which make for the broader civic or social usefulness. Secondary schools are found everywhere; they claim the finer quality of our youth; and these they hold during that wonderful period when childhood passes into manhood and womanhood — the stage of growth about which, from the dawn of human life,

apparently, have clustered the rites, ceremonies, and trials which have signalized childhood's flowering into useful adult life.

The schools are, indeed, doing something toward training for citizenship; but much of that training is incidental, vaguely defined, and probably ineffectual. We are assured, although hesitatingly, that the study of history has been given a prominent place in the curriculum of contemporary secondary education with this end in view. The public has certainly encouraged the increased study of history; in the face of diminishing interest in the classics, and even in certain of the sciences, and in spite of a growing demand for quasi-vocational subjects, history courses have more than held their own. Men who think at all believe that neither princes nor voters can have perspective suitable to their responsibilities without the study of history. In spite of the historian's skepticism, men will continue to believe that past experience must somehow provide guidance for present and future ac-

tion. Civic ideals are expected to take root and grow best wherever the records of former achievement and aspiration are gathered and made intelligible.

The popular faith in the efficacy of history study has borne fruit in the recent enormous development of that subject in American colleges. It has also assumed marked prominence in the programs of secondary schools; and with it are not infrequently linked short courses in civil government and economics. This interest is primarily due to the conviction that the citizen — voter or not — needs a purposeful civic education, if he is to be prepared to meet the responsibilities of the modern social organization. Religious education is now seldom tolerated in public schools; and other means seem to decline in effectiveness as a means of the broader social training. Such innate qualities as fear and the instinct of submission to authority which once sufficed in a measure as foundations for moral and ethical training are not adapted to modern conditions of democracy and of the sci-

entific attitude toward the problems of life. The social or group life of the schools is, as a rule, rich in possibilities of habituating adolescents to certain lines of social conduct; and it contributes to the formation of a variety of effective, though limited, social ideals. Too often, however, the habits and ideals thus developed fail to contribute to the fuller civic growth essential in a democracy; they may even in subtle ways serve to arrest that growth on the plane of what is psychologically analogous to the class, "gang," or tribal stage of social evolution. In spite of its avowed aims, the American secondary school, in its spontaneous social life, often exhibits striking manifestations of class or caste consciousness; and at heart it often falls far short of the ideals of democracy.

A program of conscious and effective civic education (using the term broadly to include all forms of training and instruction which aim purposefully to fit the individual for "group" or social life) is unquestionably the need of every democratic society; and espe-

cially is this so under modern conditions where so large a part of social action must be developed on the plane of intelligent understanding and above the planes of the instinctive and of the customary or the folkway. In America, we have to-day no such program. We attempt to use the study of history to this end, but in a half-hearted and futile way. We also utilize some formal studies of political frameworks, calling such studies civil government, as a means of direct civic education. Judged by results, however, these strivings express little more than aspirations.

But can an effective program of civic education be composed, in any considerable part, of the courses in history as that general subject is now organized and taught in secondary schools? Or is any extensive study of that subject a necessary prerequisite to other studies which may be more purposefully directed toward education for citizenship? It is the writer's conviction that the study of history, as now carried on in secondary schools, does

not "function" in appreciable modifications of civic attitudes, ideals, or knowledge; nor does such study contribute essential or valuable elements to other studies which may be organized in the interests of civic or social education.

That an effective preparation for citizenship should involve study of history is beyond question; but our present history courses are shaped along wrong lines, and are pedagogically unadapted to the ends sought. It is not so much a question of poor teachers, but rather one of faultily conceived aims, wrong orientation, and the use of pedagogical methods which defeat the true ends of social education.

Perhaps it is not intended that the study of history in secondary schools shall "function" in the shape of improved capacity for the responsibilities of citizenship. This position is often taken by historians and by history teachers themselves; they disavow any such "practical" purposes in their work. They claim that the study of history must hold a place with that of the "pure" sciences, and with the pursuit of art "for its own sake." We can

understand and approve this view when it affects that relatively small number of individuals who have special tastes and interests in the study of history as a means of general culture, and who may even aspire to constructive effort in this field.

But if we accept this position, why press for the extensive use of history studies in secondary education? Does not the subject in that case belong to the category of educational luxuries? Should publicly supported education be asked to address itself at great expense to such ends? The fact is that teachers and writers of history have not yet honestly and adequately faced the question, "To what ends should the study of history be made a part of secondary education?" Most of the books and articles dealing with this general subject are either lacking in concreteness or they rest on psychological interpretations of the learning processes which should be discarded. It is, of course, true, that it is as yet impossible to formulate in terms of demonstrable educational utilities the aims of several other sub-

jects now taught in secondary schools. No one has yet demonstrated with any degree of finality just why girls should be encouraged to study mathematics, or what should be the controlling aims in the study of Latin. These matters still belong in the domain of enduring faiths; but the case of history study is rendered serious because of the growing popularity of the subject on the one hand, and the obvious need of a more adequate social education on the other. Because teachers of history do not certainly know what results they seek, in terms of valid educational utilities, their efforts seem to be largely wasted, if measured in terms of better citizenship. The amounts of time and of conscientious labor now given to the subject are great; but the seed seems in large measure thrown upon a rock. Agencies outside the school and often irresponsible as regards the larger needs of society are to-day fashioning the civic habits, ideals, and knowledge which underlie social conduct. The responsibility of the schools, and especially of secondary schools, in this connec-

tion, is one not to be ignored; they must equip themselves anew with instruments of tested worth and they must learn to use them in the service of the social well-being of the present and the future.

History courses, as now found, especially in secondary schools, reflect only the most superficial pedagogical organization. A subject of study is pedagogically organized along right lines when its materials and indicated methods of presentation are of such a nature as to serve the purposes of economical and effective mediation between learning capacities, on the one hand, and the attainment of ascertained educational goals, on the other. What ultimate objects are to be attained in teaching to first-year pupils in high school Grecian and Roman history? Until this question is answered, there can be, obviously, no organization of the subject-matter of ancient history of a nature suitable for effective teaching; nor can profitable methods of presentation be formulated.

It is not enough to say that the object to

be kept in view is simply the intellectual mastery of so much ancient history. There are more fundamental questions: Why is the learning of this history more important than the learning of other history? What conditions determine the elimination and retention respectively of the innumerable facts and elements of the history taught? Can we guarantee that Grecian and Roman history, as taught, will "function" as knowledge, power, or culture? What are the native intellectual powers of youth, and what the experience already acquired which may be utilized in rendering the teaching of such history pedagogically sound? Finally, what are the methods best adapted to realize the aims which may eventually appear to have validity? These are questions to which the attention of the writers and especially of the teachers of history have not yet been sufficiently turned, so far at least as secondary schools are concerned. As respects both aims and methods, the various courses of history teaching are still in essential respects unexplored territory.

Indeed, as abler and more scientific men contribute to the writing and interpretation of history, the subject seems often to become less rather than more available, as a rule, for school purposes. History is for the historian more and more a record of the sum total of those social events and processes which have significance to mature and scholarly minds. Generalization and interpretation play a constantly increasing part in the evolution of the subject; thus bringing into greater prominence elements of an abstract nature. These are assimilated with difficulty, and often with only verbal content by youthful minds; and the empty knowledge resulting avails neither for personal culture nor for social usefulness. Furthermore, both historian and history teacher tend to organize and interpret the sources of history without reference to the significance or applicability of these to the problems of present and future social life. However necessary this procedure may be in the interests of "pure" or scientific history, it is inevitable that the teaching of history as something

detached from and unrelated to contemporary experience will seriously and often fatally impair its pedagogical value and availability, so far as the large majority of younger students is concerned.

It may, indeed, with Nietzsche, be questioned whether, for the average person, the study of history has significance except on the basis of a receptive capacity born of contemporary interests and experiences. "He desires to experience something for himself, and feel a close-knit, living system of experiences growing within himself. But his desire is drowned and dizzied in the sea of shams, as if it were possible to sum up in a few years the highest and notablest experiences of ancient times, and the greatest times too."

Following the thought of Nietzsche, it is probable that historian's history, and especially when desiccated and capsuled into handy textbooks, can be profitable only to ripened students, possessed of unusual capacity for abstract thinking. For all others, though we may force certain portions of such general-

ized and condensed history into mental cold-storage chambers, it remains inert and devoid of social worth. The mind is, indeed, able at every stage of growth to extract from the materials of history, as the plant extracts from the soil, intellectual and spiritual food, if that is made available. Indeed, in the lower grades of the elementary schools much has already been accomplished in this direction. At appropriate stages, the fables, hero tales, stories of achievement, and biographies are drawn upon to meet evident interests and to reinforce and idealize current experience. But in the upper grades and in high schools we still cling to the belief that highly condensed generalizations and masses of dried statements of facts can "function" as enduring education in history, to say nothing of any fructifying effects on social attitude, ideal, or insight. We have as yet only foreshadowings of a pedagogy of the subject which shall make it the handmaid of vital social education.

History teaching fails to serve as an instrument of civic education in the secondary school

because its aims are undefined and its organization and study are pedagogically unsound. Further developments in the direction of the purposes and methods now generally approved will not help the situation. We must face the question of a broader civic education anew; and we must find for that purpose means and methods among which what is now recognized as history will, indeed, play an important but not a controlling part.

What must be the character and scope of an effective program of education towards citizenship? And what part will the study of history play therein? At the outset, it should be noted that the instincts of fear and of submission to authority play a less prominent rôle in social control than was formerly the case. An effective social control (which is the final object of all civic and moral, and of much of religious, education) must henceforth rest in large measure on intelligent action. Through long periods, society organized itself about the social instincts; and, later, also for long

periods, it widened, deepened, and strengthened itself on the basis of customs and other elements of a social inheritance in which the products of scientific thinking played but small part. But these later ages, characterized by aspirations toward democracy, on the one hand, and by dispositions toward scientific method, on the other, require that social control shall utilize in increasing measure the instruments and methods of intelligence.

The broader social education will, of course, not only continue to recognize and to use the social instincts, but it will shape them into useful habits; it will make and reshape, where necessary, these social habits which we call customs, and it will seek to make right attitudes and right conduct customary; but in ways and to degrees hitherto little understood and, perhaps, not always approved, it will seek to render intelligible the forms and motives of right conduct. It will do this through interpreting contemporary social action and through idealizing the higher forms of service and of participation in living society.

To this end the various social agencies must be brought into more effective coöperation. Home, church, workshop, playground, press, and stage are all agencies of social education. But, because these are not directly the creations of the state, their share in social education is in large degree beyond present public control and direction. The public school, however, is the instrument of the state; and to it the state gives residuary responsibilities in the broader program of civic education. What other agencies cannot or will not do in an effective and practicable scheme of social education, the public school must do. Especially will it fall to the school to do much in promoting social knowledge and in developing fruitful social ideals.

The modern study of pedagogy renders it certain that the school will best accomplish its mission in this field by utilizing in a fundamental and vital way the social environment of its pupils. The school itself is a living, dynamic society; the school is situate in the midst of a social *milieu* which exemplifies

unnumbered forms of social activity, and which abounds in opportunities for those most effective forms of social education, namely, participation in social activities, on the one hand, and, on the other, observation of such activities in cases where participation is impracticable.

But intelligent study of educational processes also proves that, building at first on the foundations of suggestive and vital experience, the mind is soon able to utilize materials brought from afar. On the levels of comprehension made possible by concrete contact with contemporary life, the pupil is able to reach out in space and time and to draw to himself with profit the contributions in verbal and other forms which history, geography, literature, art, and the like have to make.

Thus, the study of history has, indeed, a place in the broader social training of youth; but it must serve as the handmaid of a richer and more composite subject than has yet been described in the curricula of secondary education. In ways not yet clearly foreseen, we must

discover how to utilize the social environment as a means for the objective study of social science, as this is capable of being learned by adolescent youth. In the execution of the programs thus formed, we shall, from time to time, and often in large measure, draw upon the records of past achievement and ideal for those things which will cause our students to discriminate, to stay ready generalization, and to feel the inspiration of great thoughts and noble actions.

But the formulation of this program of social education is not easy. It involves an intelligent understanding of the stages of intellectual achievement normally possible to adolescents at various stages of growth. Teachers in college and school are as yet none too firmly convinced of the possibilities of the study of pedagogy; and their attitude is as unsympathetic as it is uncomprehending toward the study of such improved methods of teaching as must rest rather on knowledge of the learning processes in children than on knowledge of the subject-matter of studies.

Nevertheless, many beginnings have been made. The programs of the elementary schools, especially in the lower grades, offer many suggestions. Here and there secondary school-teachers have sensed the futility of prevailing methods and are striving for something better. Numerous textbooks on the teaching of civics are available; and these show a steady evolution toward the ideals of concrete social education. Various sociologists have pointed the way, even though as yet uncertainly. A few of the prominent historians have themselves felt the pressure of the new demand, and have turned aside from their own constructive work to reflect upon the problems of secondary education.

In our progress toward a functioning social education in which the study of history shall play its part, we must recognize the necessity of basing our efforts, except in rare instances, on contemporary and local experience. At the outset this requires that we shall first discriminate those levels or elements of social life which are normally comprehensible by children at different stages of development.

Very young children, indeed, are able to possess themselves of those phases of social life and experience which are embodied in stories, fables, and biographies as currently adapted; and from these, under right teaching, they are capable of profiting greatly as regards social education. At later stages of growth, boys and girls can be led to comprehend and to interpret in fairly broad ways a wide range of economic activities; and the insight and ideals thus developed may be greatly reinforced by suitable studies of the corresponding economic activities characteristic of various historic periods.

Experience will show us that as mental and spiritual growth take place, there arrives a time when large numbers of children become vitally interested in group action along quasi-political lines. Achievement and observation in this field should lay the foundations for that insight which will make the study of the political activities of various historical periods comprehensible and suggestive.

Thus, we shall find at every stage of evolv-

ing intelligence in youth manifestations of interests which may be utilized in furthering the development of social insight and ideal in new directions and to new degrees of intensity; and to the program organized for this purpose history must make its contributions. In fact, must we not discover and cultivate such interests before we can proceed? In the last analysis, no effective social education, and apparently no effective study of history is possible without them.

With greater maturity will appear, at least in some of our pupils, capacities for more abstract thinking, and for more comprehensive generalization. At this stage, an understanding of the causes and consequences of the world-wide interchange of Canadian wheat, Rocky Mountain copper, Manchester cottons, Brazilian coffee, and Australian wools will give sufficient foundations for studies of the struggle for India, the rise of Italian cities, and of the conquests of the valley of the Nile. These studies, however, may not interest all; and for those who care for them, in most

cases, they should be regarded as means only to a useful knowledge of contemporary social life — knowledge which ultimately "functions" in control of some sort. Only in the case of the exceptional student may we expect the delightful study of history "for its own sake" to become an absorbing pursuit; and certainly nothing in the program here set forth will prevent such a consummation.

The plan of civic (or social) education here foreshadowed is nowhere yet organized, at least in the field of secondary education where it most properly applies. In French public schools earnest strivings after a broad program of moral or "patriotic" education as a substitute for the discarded instruction in theology, have produced something analogous to it; but the French scheme is still in an experimental stage and is, in many respects, rendered ineffective by the practice still prevalent in French education of basing nearly all pedagogical devices on a psychology which is characteristic only of adult minds. We have every right to expect that out of our American col-

leges, where education is being studied more and more as a science, shall come men of constructive mind who will do for history as a means for social education what kindred minds have recently been doing for history as a field for scientific inquiry. Mommsen, as we are told by Professor James Harvey Robinson, was able to achieve a name as a historian, and yet remain long ignorant of such fundamentals in historical interpretation as the ice-age and totemism. In an era of educational progress like our own, we shall not have to wait long, it is to be hoped, for leaders who will broaden the vision of the teachers of history and will cause them to see the real meaning of an education that makes for social efficiency.

V

THE PRACTICAL ARTS IN LIBERAL EDUCATION

THE place of the manual arts has been much discussed recently with especial reference to vocational education. Some recent excellent papers also present, with new points of view, the bearing of the subject on general or liberal education. The writer's experience with certain administrative aspects of both vocational and liberal education suggests a few queries which appear worthy of discussion at the present time.

Thanks to the developments of the last twenty-five years, we have a great body of experience on which to draw; and while much of it fails to assist our constructive thinking, it lends itself at least to the drawing of conclusions of a negative nature.

We shall be able to discuss this department of education more profitably if we confine ourselves to a fairly definite field. At the risk of

seeming to narrow the territory unduly, the writer asks consideration of the queries and discussion hereafter presented, in connection with the area of child life comprehended between the ages of twelve and fourteen — the last two years or grades found in the typical American eight-grade elementary school; and in order that there may be no uncertainty as to the scope of the subject, he purposes to employ the term "practical arts" as a comprehensive phrase to include all such branches, studies, or exercises such as manual training, manual arts, cooking, sewing, agriculture, printing, and related subjects, in which the conspicuous element in process and realization is manual activity in pursuit of concrete and objective ends, which are capable of being identified with the fruits of the vocational activities of mankind. These studies are, therefore, contrasted with those which constitute the rest of the elementary school program which are relatively abstract and involve a more intellectual approach. The following seem now to be important problems for discussion: —

1. Are not the practical arts, as factors in the program of studies for the upper grades, suffering from a confusion of partially contradictory aims?

The error seems widespread that the same procedures will enable us to realize equally the ends of liberal and of vocational education. Experience now proves that we can accomplish the purposes of vocational education in a selected field by the choice of appropriate means and methods. However, these make partial and, often, only incidental contributions to some of the important ends of liberal education, which is education, not in production, but in broad and socialized utilization;[1]

[1] Liberal education may be defined in various ways, but to the writer, the most serviceable definition is to be made by contrasting liberal with vocational education in the same way that production and consumption (or utilization) are contrasted in social and economic life. Vocational education is designed to make of a person an efficient producer; liberal education may be designed to make of him an effective consumer or user. The liberally educated man utilizes the products and services of many producers; but because of his education he uses them well, both in the individual and in the social sense. Through the effective utilization of such products and services he raises the plane of his own life; and, none the less, he elevates the sources of the goods and labor which he

whereas, the procedures suited to a true liberal education may develop relatively little in the way of vocational power. The two forms of training face, if not in opposite, at least in widely divergent directions, as the experience of the ages testifies; yet in practical arts teaching to-day we are striving simultaneously to follow both paths. The results are disappointing to the partisans of each purpose; and the practical arts teacher meets the usual fate of him who seeks to serve two masters.

2. Is it worth while to insist on the vocational aim in the practical arts group of studies, when these constitute but a single feature, and often a minor one, in a program of general or liberal education?

Vocational education is increasingly necessary, and we shall see it constantly develop in

employs. He uses good literature, rather than bad; he exacts from other producers expert rather than untrained and fraudulent service; in his contacts he puts a premium upon good taste, refinement, and right morality; and in the sphere of more material consumption, his demands lead to improvement both in the quality of the goods he obtains and in the social conditions surrounding their production. His utilization elevates himself and also the world because of his appreciation, his insight, his sympathy.

appropriate public schools, and under conditions which promote in it real efficiency. In the general school, however, time as well as other essential elements are insufficient to permit the realization of genuine vocational power. Efforts in the direction of producing vocational efficiency as a by-product in a scheme of general education only take us into the land of make-believe. We have far too much of the resulting sham vocational education in America at the present time. On the other hand, the practical arts can be made to play an active and fruitful part in a scheme of liberal education. Let a boy in the spirit of the amateur make a few articles of wood, of metal, and of clay; lead him to try his hand at cloth-making, at tillage, and at printing; induce him to build on the resulting basis of rich, even though fragmentary, experience, some comprehension of the social significance of the regions of enterprise into which he has made curious incursions — will he not, on this account, be a larger, more intelligent, more social man? Will he not more surely enter

into the broad and civic utilization of the world in which he finds himself, because of the vital contacts thus made possible? Vocational ideals, and capacity for intelligent vocational choice, may come from this wide, even though superficial, participation; but we have no right to expect from it much in the way of direct vocational training. The schoolmaster has erred in thinking of vocational education as a semi-holiday affair, in which boys work in shops whilst wearing clean cuffs. Liberal education for child as well as man may well involve along with its more controlled aspects, leisure, the following of strong tastes, and the spirit and effort of the amateur, as he pursues his *avocation;* vocational education must be more serious, more effortful, closer to the realities of practical life in respect to the hours, discipline, surroundings, and strivings of productive labor. Let not vocational education come too early; neither let it be too long deferred; but especially let it not be lost in following the will o' the wisp of manual training.

A valuable contribution to liberal education can be derived from the practical arts, although pedagogic formalism has largely prevented this result hitherto; and not the least important element will be the economic insight, the industrial intelligence and sympathy which, as Dean Russell shows, can be built up around the youthful amateur's participation in suitable phases of human occupation. Should we not, then, in practical arts studies, frankly differentiate liberal from practical aims, and quite firmly relegate the latter to the vocational schools?

3. Is it worth while in the practical arts branches to defend longer a pedagogy of aims and methods based on psychological conceptions which are being discarded in other departments of education?

The very phrase "manual training" suggests the older notion that specific and intensive training in a restricted field would lead to general powers of habit, insight, and ideal. The idea still survives in the persistent efforts of writers on manual training to schematize

"logical" courses, to enforce "type" studies, and to compel generalized appreciation of such qualities as the "artistic" and "workmanship." The failure to recognize the genetic order in the development of the powers of childhood is not confined to practical arts teaching, by any means; but such failure is peculiarly disastrous in a department where we had a right to expect such substantial and valid results of liberal education as permanent interests in the finer material things of life, heightened appreciation of the output of shop and farm, and socialized experience in a variety of the channels of human effort. Would it not be better to take our practical arts subjects out of the cloudland of educational mysticism, and to rehabilitate them in a world where youthful instincts, contemporary ideals, a growing range of possibilities of social utilization, and the crudeness of childish and adolescent powers all have due recognition and interpretation? The normal child is insatiable in his desires to express in constructive activities and with concrete materials his dawning appreci-

ation of the world in which he finds himself; his efforts evolve gradually from the largely purposeless activities which serve for physical growth, through those which minister consciously to the play instinct, and into others which foreshadow purposeful efficiency in the quest of the utilities of civilized adult life. Can our courses in practical arts not do more to seize upon and work with, instead of at cross-purposes to, these fundamental growth-processes? Should not the youth whose creative instincts are strong, and who is destined to be a more or less socialized consumer of many wares from many hands, be encouraged toward a varied, even though amateurish, participation in productive effort? Can we afford, in face of these opportunities, and in the limited time at our disposal, to lose ourselves in the formalisms, the correlations, the logical sequences, the questionable ideals of "finish," "thoroughness," and "artistic quality," which have seemed to afflict the pedagogy of manual training, and, to a less degree, that of the household arts and the arts of tillage? Would

it be greatly amiss to proclaim as our chief purpose in practical arts education, an enriched and varied experience along lines largely suggested by the interplay of youthful instincts and environmental influence, not least of which last would be the sympathetic suggestion of the child's teacher? Even though such a purpose were to result in a considerable individualization of programs; in the general substitution of concrete "projects," each functioning directly in some preconceived end of worthy personal satisfaction, for schematized steps in instruction; and in the development of only moderate standards of thoroughness and artistic quality; might we not, nevertheless, expect a more vital interest, a more real growth, and a richer contribution to the important ends of liberal education, because of the extent to which appeal is made to individual initiative and other qualities of self-active childhood? Granted the extraordinary administrative difficulties involved in such a program, we shall never learn how to deal with the difficulties in this sphere of action until

we know toward what goals and under what impelling motives we are moving.

4. Is it profitable to permit practical arts subjects to be deflected from their important purposes by considerations of correlation?

This query is less pertinent in relation to upper-grade work than elsewhere; nevertheless, even here a satisfactory theory of the purposes of practical arts instruction is confused by over-insistence on correlation. It must be recognized, of course, that we may yet evolve a program of school activities in which certain large strands or units of organized effort fundamentally related, on the one hand, to the needs of genetic development in the individual, and, on the other, to the educative contributions of the environment, shall form the sources and provide the motives for the specialized and often fragmentary activities which now constitute the program of studies in the elementary school. This possibility should not, however, be made the pretext for the artificial attempts at correlation often found. Drawing and other art subjects, mathematics, science,

vernacular language, literature, history, and hygiene, all have their applications in practical arts teaching, and this subject, also, makes at least incidental contributions to them in turn. A natural and unforced correlation is open to no objection; but most prevailing schemes to that end are impractical, unpedagogical, and fruitful of harm to all subjects involved. It may be doubted whether even the attempt to drive drawing and manual training in the double harness of correlation has not injured the teaching of each subject. In other words, until the Herbartian conceptions of a reorganized scheme of studies shall have reached the stage of a developed and tested program of teaching method, ought we not to regard each principal subject as involving its own essential aims, means, and methods, the realization of which can be assisted by a moderate amount of natural correlation, but which the supposed interests of a unified program must not be permitted to nullify?

5. In the present stage of educational theory, can we not find abundant justification for

practical arts instruction based on a wide range of units, or projects, selected from the principal fields of industry, agriculture, and household arts, each adapted to the powers and active interests of the stage of youthful development to be ministered to, and each designed to make only such exactions on the pupil as regards thoroughness, scientific analysis, elaborateness, and conscious application of art and science, as shall prove fairly natural and profitable?

Men and women till the soil, fashion objects of wood, work metals, weave cloth, make clothing, prepare foods, print books, build houses, shape vessels of clay, manufacture shoes, erect machines. In these and other fields, applying creative activities to materials, they achieve self-development and a beneficent mastery of nature. From each of these fields it is possible to select units of achievement adapted to the powers of youth and tending to elicit its ambitious efforts. Furthermore, a large number of these projects function actively in the personal needs or social envi-

ronment of youth; and they lend themselves as useful means of interpreting contemporary economic life, of stimulating vocational ideals, and of calling forth latent powers. Hence such a program contributes genuinely to liberal education, giving insight, appreciation, and ideals with reference to broad social utilization.

Suppose that the boy of twelve or fourteen choose his projects from the following: the growing of selected vegetables or other plants; the making of pieces of playground apparatus or articles of furniture for the home; the varnishing of a school desk; the cleaning and repairing of a bicycle, faucet, lock, or sewing machine; the sharpening of a collection of cutlery used at home; the half-soling of a few pairs of shoes; the constructing of some steps of concrete; the binding of some sets of magazines; the mounting of photographs or framing of pictures; the preparing of articles of food used in camp; the printing of a pamphlet; and the executing of hundreds of other undertakings which educational inge-

nuity can discover. If, within the capacity of the school, and the directive power of the teacher, he makes choices, and carries his projects to a successful outcome; if, in doing so, he reads, designs, compares, and is led to comprehend such scientific and artistic principles as are not too deeply involved in his work, will he not have obtained a substantial addition to liberal education? Is it of fundamental importance that he shall have completed all the steps in some abstract series of exercises? Suppose he has not reached the degree of thoroughness, precision, artistic or scientific appreciation commonly exacted by craftsman's standards — can we not apply here the same tests of childish growth and unfoldment that we avail ourselves of in other departments of the program of studies?

6. In the seventh and eighth grades, must not the practical arts, as described above, always be taught by a departmental or special teacher, equipped to give guidance in as many of the foregoing lines as possible?

There is no other practicable way; such a

teacher can hardly be expected to reach a journeyman's capacity in each of the special subjects, but he must have worked in all those from which projects are drawn. He must be a "handy" man, resourceful, ingenious, sympathetic with childish crudities. It is improbable that any woman can carry out the program described for boys; and, equally, only a woman should give the work for girls. The importance of holding to the amateur's standards and spirit rather than to those of the journeyman must be insisted on.

The foregoing theory of manual or practical arts teaching finds analogies in certain other subjects of the elementary school curriculum, such as literature, music, history, hygiene, practical science, and civics. In the early stages of each of these subjects, modern pedagogy insists on the utilization of units touching the dominant interests, and not remote from the spontaneous learning powers of children. Literary selections which readily carry themselves into the graces of childhood;

songs easily learned and retained; biographies, myths, and historical stories; attractively presented descriptions, interpretations, and admonitions regarding the conservation of health; explanations of natural phenomena, calculated to satisfy native and induced curiosity; and actual contact with, and conscious service in, the environing activities of social life — these are some of the instances where the ends of a true liberal education of children are being achieved by pedagogical procedures wherein logical organization of subject-matter, formalism of method, and abstract standards remote from childhood are at a discount. Each subject presents later steps wherein organization along more rigid lines, and the employment of the more artificial learning processes, may be necessary; but the foundations of interest, imagination, and appreciation have then been laid. In practical arts teaching the place for drill, systematic approach, and approximation of journeyman's standards, is in the vocational school.

VI

DIFFERENTIATED PROGRAMS OF STUDY FOR OLDER CHILDREN IN ELEMENTARY SCHOOLS

In attempting to compare American with European systems of education, the writer has reached the following conclusions, among others: (*a*) In the education of younger children, of approximately the ages five to twelve, American elementary schools compare favorably in spirit, methods, and results with corresponding schools in European countries; but (*b*), on the other hand, American schools are as a rule relatively inefficient, so far as the education of the large majority of children of the ages from twelve to sixteen is concerned.

The following are some of the phases of this subject worthy of fuller consideration: —

(*a*) American children go to school willingly during their earlier years. The classroom discipline in the lower grades is mild and the atmosphere homelike. Teachers are interested, and usually appear to be equal to the tasks set

before them. The program of studies presents certain definite goals in reading, writing, spelling, and arithmetic, in which subjects progress is, as a rule, obvious. Other subjects of study of a less formal nature, such as general reading and literature, music, drawing, hygiene, practical arts, and nature study serve to vitalize the more formal subjects. The children gain steadily in powers of expression, and at the same time grow in general experience and powers of appreciation.

(*b*) On the other hand, in the upper grades of the elementary schools and in the case of retarded children beyond the ages of eleven or twelve, teachers in American schools often have great difficulty in making their work interesting and significant to their pupils. Some subjects, such as geography, history, and arithmetic, have had their most interesting phases presented in the lower grades. After the age of twelve, in most American schools, little visible progress is made in ability to read aloud, to use the pen, to compose, to sing, to speak effective English, and to perform the

simpler operations in arithmetic. For these older pupils, educational goals, as formulated, seem to lack in purposefulness. The outlines of study in such subjects as geography, history, and literature tend to be over-ambitious, whilst pedagogical methods employed in teaching arithmetic, drawing, and the various phases of English expression are often unsound. In home and library reading, as a rule, older pupils continue to manifest a growing capacity and interest, but in most other subjects attention and application are weak and the results uncertain. The older and less ambitious teachers transform nearly all the work of these grades into a dull drill in which routine memorization plays the largest part. The younger and more ambitious teachers seem often to be wrestling with tasks that are beyond them. Manual training, arithmetic, and history are often taught by women teachers who seem unable to make these subjects vital and significant to the boys of their classes.

(*c*) A considerable percentage of boys and girls of twelve to fifteen years of age belong

to what is known as the retarded class, being from two to five grades behind the point at which they should have been had they entered school at the usual age and made steady progress thereafter. For these retarded pupils, the work of the lower grades is manifestly unsuited. A boy of thirteen in a fourth grade is usually an educational misfit of the most pronounced character, no matter how excellent the teaching in that grade may be. It is seldom that teachers of the lower grades are able to take personal interest in retarded pupils. They have neither the time, ability, nor disposition to deal with pedagogical problems presented by older boys and girls.

(*d*) At or about the age of fourteen a constantly increasing number of American children enter the public high school. More than half of these, as a rule, will attend not over two years. At present, something over one per cent of the population of the United States is in constant attendance on secondary schools. No longer do these schools attract only the children of cultivated homes or of parents

having ample means. Laborers and other persons of moderate means now send their children in large numbers to high school for one or two years of education beyond that obtainable in the elementary school. But for those pupils who stay but one to two years in the high school the usual programs of study are ineffective and barren. The first two years of the traditional high school program offer, as a rule, but a limited range of subjects, and these are of an essentially preparatory nature. Algebra, geometry, ancient and modern foreign languages, ancient history, English literature, and English expression — these represent the staple program, and their pedagogic treatment is commonly formal and abstract. Teachers of the first and second year subjects in the high school are often young, inexperienced, and without special training. The formal courses presented in English, foreign languages, mathematics, and similar subjects may be the best preparation for pupils destined to finish high school work and pass into college, but any careful examination of the work of those classes

of students who are not preparing for college will show that the educational outcome for them is small indeed. Not infrequently the character of the work presented and the methods employed exert a decidedly negative influence in the shape of a destruction of intellectual interests and the creation of distaste for all forms of study and school work. Everywhere in our high schools may be found large numbers of pupils of only moderate ability and ambition who are being educated in the company of others who are destined to go to college. The less bright pupils are handicapped at every stage of their educational career. Even when commercial subjects and the practical arts are introduced into high school curriculums, these subjects are either inaccessible to first and second year pupils or else are treated in a formal manner as introductory to something more substantial to come later. It is often said that the rapid increase in attendance on high schools is proof of the satisfactory character of their early work. There is little substantial evidence that this is the case, how-

ever. The large increase of attendance is primarily due to social changes and the ambition of parents that their children shall not enter on vocational occupations too soon and shall not in the mean time remain idle. A constantly enlarging proportion of parents desire to provide a cultural education for their children beyond the fourteenth year. They are not, however, prepared to carry the burden beyond the sixteenth year of the life of the boy or girl, the age at which the nature of the pupil, on the one hand, and the calls of industry, on the other, are apt to unite in effectively appealing to the vocational interests of young people. Nowhere in American secondary education is a systematic provision made for the cultural education of youths from fourteen to sixteen years of age. For pupils who drop out at this later age, therefore, the charge must hold that the latter part of their education has been relatively ineffective.

If the education of American children of twelve to sixteen years of age is to be rendered

more effective, several kinds of constructive action are necessary. Teachers may be better trained; more scientific pedagogical methods in subjects already taught may be devised; the active coöperation of the home and other educational agencies may be increased; and vocational schools for children over fourteen years of age, paralleling schools devoted to liberal education, may be organized. Obviously, the traditional European practice of making relatively more costly provision for children of the more favored classes, as such, cannot be tolerated in America. Equality of educational opportunity is to be regarded as a guiding principle in whatever may be done in public schools.

It is the belief of the writer that the most necessary changes toward rendering the phases of education here under consideration more effective are essentially administrative. They involve an increasing flexibility in curriculums and more purposeful programs of study than are at present available. The special problems involved may be presented in the shape of a

series of questions to which, for the sake of eliciting discussion, tentative answers expressing one point of view are appended: —

1. Is not the uniform program of study now commonly obtaining in the seventh and eighth grades of the American elementary school overloaded with different subjects?

English literature, the various branches of English expression, history, geography, arithmetic, drawing, practical arts, hygiene, and music are always found; attempts are constantly being made to introduce into the upper grades such subjects as foreign language, algebra, constructive geometry, bookkeeping, and special phases of industrial arts. In many of these studies, the standards are necessarily superficial to a marked degree. For the teaching of some of them, schools are quite lacking in suitable equipment, and teachers are deficient in training. It is impossible to avoid the conclusion that the prevailing effort in American elementary education to keep the program of study uniform for all children alike leads to superficiality, mal-adaptation and an

overtaxing of the resources of the average teacher.

2. Is it desirable that in our American elementary schools, opportunities should exist for the beginnings of foreign language study on the part of such pupils as need or desire it, at or about the age of twelve?

It is generally conceded that a foreign language, rightly taught, can be more effectively learned at the age of twelve than later. The most conspicuous advantage possessed by European school children over American is found in the opportunities afforded them to begin foreign language study relatively early. Probably few American children, as compared with European, should be induced to study a foreign language; but there are the best of reasons why opportunities should exist for those who have special talents in this direction or for whom a higher education is a matter of strong probability. It should be evident, however, that it is easily possible to waste time in the study of foreign languages. Unless such languages are taught by effective pedagogical

methods, time devoted to this field may be wholly misspent. Only in one way can such study be made effective. Special classes must be formed of those having the ability and the desire to apply themselves to the subject, and competent special teaching provided. It is evident that this can only be brought about through the inauguration of a flexible program of elementary education for the upper grades. Obviously, objection should be made to any program of elementary education making mandatory the study of a foreign language. Attempts of this character commonly fail in the American scheme of elementary education, and it is to be expected that they should fail.

3. Is it desirable that pupils of twelve to fourteen years of age should be offered the opportunity to take substantial courses in the practical arts?

Every administrator is aware that a considerable number of boys and girls find in the various divisions of the practical arts opportunities for expression and interest not to be obtained in other subjects. The introduction

of manual training and manual arts has accomplished something in this direction. Nevertheless, the one and a half or two hours per week usually devoted to this subject is insufficient time in which to produce satisfactory results either for pupils or teachers. There is no defensible reason why the school day should not be longer for older children than is found in the prevailing practice at present; and there are good reasons why special classes in the practical arts, employing as much as ten or twelve hours per week, should be organized. Obviously, such courses should not be made obligatory upon all pupils, but should be alternative to other types of work having demonstrated educational value. Here again, flexibility in the program of education for older children should be permitted.

4. Is it desirable that pupils of from twelve to fourteen years of age should have as an option, alternative to courses in foreign language or in practical arts, in the elementary school, a course of from eight to ten hours per week, consisting primarily of commercial

arithmetic, the beginnings of bookkeeping, business penmanship, business English, and typewriting?

Such a course would offer fairly definite goals and would tend to produce on the part of pupils electing it fairly definite and tangible educational results. A certain measure of preparation for some future vocation would undoubtedly follow from this as from courses previously discussed, although the vocational aim for children of the elementary school period should never be dominant. Typewriting, business English, etc., are subjects that can readily be learned by pupils from twelve to fourteen years of age.

5. In view of the foregoing, is it not practicable and desirable, where upper-grade classes are sufficiently numerous, to organize the higher work of the elementary school in such a way that certain studies, such as English literature, English expression, history, civics, geography, music, hygiene, and the like, shall be taken in common by all pupils; while, in addition, any one of four possible

options may be taken by groups of pupils to complete their respective programs of study; these options to consist of (*a*) a foreign language and mathematics; (*b*) practical arts (for boys), arithmetic and drawing; (*c*) practical arts (for girls), arithmetic and art study; and (*d*) commercial subjects?

As the curriculum of the elementary school is now organized, such alternative programs would seem to present the maximum possible adaptation to the needs of different classes of young people. Each program would involve desirable forms and amounts of general education, while at the same time providing certain studies adapted to the needs and interests of those various groups of children who would probably desire to prepare for college on the one hand, and on the other for vocational schools and for practical life.

6. In order that such a plan might be made administratively feasible, would it not be practicable in cities and other populous centers to establish separate schools for children from twelve to fourteen years of age,

leaving the education of children under twelve to local schools, staffed, perhaps, entirely by women teachers and principals?

7. Would not such concentration of the older pupils make possible the introduction of departmental teaching, the employment of a larger proportion of men teachers, and a more satisfactory working equipment for older children?

In the city of Fitchburg, Massachusetts, is found a central school of this character, containing about one third of the seventh and eighth grade pupils of that city. Children may come to this school from any part of Fitchburg. In it the children may take any one of four programs of study, substantially as outlined above. It is expected that pupils finishing any one of these divisions will find in the high school or in vocational schools opportunities for a continuation of their work. The advantages here found to result from the concentration of seventh and eighth grades are many. Apart from the possible adaptation of the curriculum to the needs of pupils, discip-

plinary difficulties are lessened and a more effective contact with the high school is made possible. The esprit de corps of such a school becomes marked.

8. Is the plan herein proposed an effective substitute for the intermediate high school, as this is known in certain of the Western cities of the United States?

For many years articles have appeared in educational magazines defending the six years' high school plan. This is designed to have the effect of reducing the elementary school period to six years. Most of the arguments urged in favor of the six years' high school are sound, provided such a high school could give due consideration to the varying educational needs of the young people which it receives. If the plan of the six years' high school means that subjects similar to those now found in the high school should monopolize the program and that teaching would be mainly in the hands of young, untrained college graduates, then there exist reasons for hoping that another approach analogous to

that described above be devised whereby flexibility in upper-grade work may be obtained.

9. In a program of the kind here discussed, what place should be made for retarded children from twelve to fourteen years of age?

Obviously, these should not be permitted to remain in the elementary schools organized for children of the first six grades. They should be brought to the same centers as pupils of the seventh and eighth grades and should there be organized into special classes, perhaps sharing in some of the departmental work of the regularly promoted pupils. For example, the practical arts work adapted to seventh and eighth grade pupils, as described above, might in large degree be suitable for retarded pupils, whereas special departmental classes in English, arithmetic, and the like might be arranged.

10. Would there not be a tendency on the part of all pupils to take the foreign language or literary program described above, in view of the probability that pupils having superior home advantages would perhaps seek such a course?

In some cases this result would probably follow. Much would depend upon the spirit of those in charge of the various programs. Experience already shows that the right kind of a course in practical arts would prove a very satisfactory alternative to a modern language course. No one of the above programs of study should, of course, exclude from the opportunities for higher education, but also it should be obvious that the pursuit of one of them, to the exclusion of any other, would entail advantages and disadvantages with respect to the higher schools. A pupil taking the modern language and algebra program in the higher grades of the elementary school should obviously gain a year in the general high school; whereas, another pupil taking the commercial program, described above, would possess advantages in taking up high school commercial work. A pupil with the foreign language would necessarily require more time in the commercial program and the pupil having the commercial courses in the elementary school would probably require ad-

ditional time in the general high school program.

11. In the case of a large number of children from fourteen to sixteen years of age what reorganization of the currently accepted program of study is desirable?

In several States, it is now an accepted policy to provide vocational schools for young people who have passed the period of compulsory education, usually at the age of fourteen. We are justified in expecting this movement for vocational schools to develop rapidly. But in the estimation of the writer, an equally great educational need in secondary education at the present time is the organization of programs of liberal secondary education, adapted to young people who will probably leave school at or about the age of sixteen. To a great extent, the doors of industry and of the commercial callings are closing to youths under sixteen. Parents are increasingly solicitous that their children shall have the advantages of at least two years of education beyond the elementary school. The years from four-

teen to sixteen in the life of the average young person offer great opportunities for a vital, liberal education as this affects both personal culture and civic efficiency.

The secondary school curriculum with its various programs of study now offers little of educational value to the pupil who can remain at most but two years. As indicated above, the subjects are generally preparatory to more advanced study of a general or vocational nature. Methods of teaching are formal and ill-adapted to the development of the tastes, interests, and insights which should characterize liberal education. This condition obtains even in the quasi-vocational courses, such as those designed to lead to the commercial callings, and to industrial arts pursuits. In the so-called commercial program of the typical high school, the subjects of study for the first two years are commonly vocational only to a slight extent, being organized and presented rather with a view to the studies which are to be pursued during the third and fourth years of the course. The number of students remaining

throughout the course is, as is well known, small.

A complete scheme of secondary education should include not only one or more of the four-year programs as now commonly found, but also, in the estimation of the writer, flexible two-year programs of study, all containing English literature, English expression, general science, social science, and an option from one of the four great fields of practical arts study —namely, agriculture, industrial arts, household arts, and commerce.

What are the principal objections that may be urged against the administrative changes herein suggested?

These may be discussed under three heads: —

(1) The proposed scheme, it will be claimed, is more expensive and involves administrative difficulties. To a degree these objections are well founded. The execution of the plan will perhaps involve a considerable increase in departmental teaching. Teachers under this

arrangement should of necessity command better salaries. As the work is differentiated, a certain amount of it should be placed in charge of men teachers only. In towns and cities of large area, it may prove necessary to give financial assistance for transportation to pupils attending the central schools, although this is not commonly done in connection with high schools. Flexible programs of study always require considerable effort on the part of superintendents and other administrators in making necessary adjustments. Nevertheless, it is believed that both from the standpoint of expense and from the standpoint of administrative difficulty, the changes proposed will be amply justified in the greater educational return which they make possible.

(2) It will be charged that the proposed plan is undemocratic and that it looks to a relatively early segregation of different groups of children. It should be recognized that certain faults common in European secondary education are entirely absent from the plan. In the first place, no fees are charged to

pupils. Hence all of the courses are equally accessible. Again, the only qualification to be required for entrance to any course is the ability to carry the work of that course. There is no essential reason why children of poor people should not take the longer programs, if their parents so desire. In the third place, it is assumed that the fullest possible information will be given to parents and others in an advisory relation to children with a view to assisting them in making choices of appropriate programs of study. Finally, in all programs proposed, certain subjects are presumed to be taught in common and to all pupils. There might be good reasons for organizing the classes in such a way that pupils from all divisions of a given school should be mingled in groups wherein the subjects common to all programs are taught. It is difficult to see how the operation of the proposed plan will in any way involve an undemocratic segregation of pupils according to class.

(3) It will be claimed that some of the programs involve over-emphasis on the vocational

aspects of the curriculum. It will be observed, of course, that none of the differentiated programs in the elementary school or in the general high school are intended to be controlled by the purpose of fitting for vocations. Various branches of the practical arts are introduced primarily because of their administrative worth in promoting educational interests and in giving the background of reality for the more abstract studies. It is true that practical arts work, as given, should operate in such a way as to further the development of vocational ideals and should assist the pupil in finding the lines of his probable vocational strength. Nevertheless, all programs of study are only incidentally vocational. Practical arts subjects must be tested primarily by their capacity to contribute to liberal rather than to vocational education.

VII

THE OPPORTUNITY OF THE SMALL HIGH SCHOOL

Dr. Thorndike has shown,[1] on the basis of the figures contained in the annual reports of the National Bureau of Education, that, in the United States, public secondary schools which have only one or two teachers are in excess of all the others; while in high schools having fewer than four teachers are enrolled over one third of all the secondary school pupils of the country. In Massachusetts, approximately forty per cent of the high schools have fewer than four teachers.

From the standpoint of the colleges, and also from that of many speakers at our larger educational gatherings, these small high schools may seem to be rather poor, understaffed, and generally ineffective institutions; but, looked at as the principal cultural agencies in some-

[1] *Educational Review*, vol. xxxiii, p. 245.

what sparsely settled regions, usually agricultural, where a considerable percentage of high-grade men and women are born and reared, they assume a large importance.

These schools are rarely without a few pupils preparing for college. The teachers are usually recent college graduates, as yet unable to interpret education except in terms of college courses still fresh in memory. The college, through its entrance requirements, indicates detailed and definite standards to be met. Hence, quite naturally, the work of the small, undermanned secondary school is customarily one long struggle to bring a limited number of boys and girls to the point of getting into college with some degree of credit. The test thus imposed on the faculty of the school is concrete and easily comprehended by the community. Teachers are judged by the success of their pupils in meeting the requirements of higher institutions. None of the other standards and ideals of secondary education, so often discussed in general, and so seldom in specific, terms at educational and

kindred gatherings, have much weight with the small high school. Its teachers are of sheer necessity followers, not originators; and they have their hands full in seeking to meet the very specifically formulated requirements imposed by the colleges.

Thus restricted in its scope, it is undoubtedly true that the small high school has largely failed to serve as effectively as is ideally possible the local community needs as represented in that large majority of its pupils, for whom a higher education is out of the question. Naturally, high school teachers, as well as college critics and examiners, do not admit this. Somewhere in the past originated the belief that for any and all persons certain abstract studies, such as algebra, Latin, ancient history, physics, and the like, possess an exceptional value in unfolding the powers of the mind and in developing or imparting that elusive quality called culture; on this belief the accepted curriculum rests. These studies play an important part, of course, as tools in higher education as usually organ-

ized; but that, in the shape which they ordinarily take when presented as means of college preparation, they should be assumed to have other kinds of educational utility, is one of the mysteries of contemporary educational thinking. Probably an explanation is to be found in the disposition of many persons to reason according to the principle of *post hoc, ergo propter hoc*. Young people who have had these studies succeed better, as a rule, in the world than those who have not, whether judged by standards of material success or of cultural development. But in fact the pupils who pass well in a secondary school program of abstract studies are ordinarily a picked lot, in respect to both inheritance and environment. They are those for whom culture and prosperity are, in a degree at least, inevitable, no matter what the school program may be. The conviction, however, is slowly spreading that the traditional program of the small high school is, for those who do not reach college, a relatively futile affair when viewed from the standpoint of any one of the three possible

aims of secondary education, namely, vocational efficiency, civic capacity, and personal culture. There is a growing demand, often inarticulate, in communities supporting such schools, but finding more definite expression in circles where these problems can be systematically studied, that the artificial restrictions imposed on general secondary education be relaxed, and that such education be measurably readjusted so as to serve more acceptably the actual needs of the community.

The response to this demand is, even now, partially felt. At first hesitatingly, then wholeheartedly, important institutions of higher education have modified their standards. They do not aim to lower their requirements, as expressed in the general ability of entrants to do good college work; but they manifest a wholesome disposition to let the high schools do their proper work in their own way and to accept the results, provided only the graduates of these schools will in college "make good" by their ability to do serious and effective higher study. We may now hope that the

time is forever past when colleges could harass secondary schools by their capricious insistence on special topics, texts, or time-tables in algebra, French, chemistry, and other traditional subjects. A period during which the colleges nursed the high schools was doubtless necessary; but apron strings have been cut, and our great institutions of higher learning are opening a new era by reposing increased confidence in the management of secondary schools.

As a consequence a heavy responsibility now devolves upon the public high school. It must define its true aims — a thing it has never done — and must work out a pedagogy of means and methods, towards which general subject a not uncommon attitude even yet is that of the farmer who, after carefully inspecting and feeling of the dromedary in the circus, muttered, "There ain't no such animal." Those responsible for the administration of the small high school must needs give especial attention to a determination of what is meant by community needs, on the one hand, and the

educational possibilities of different groups of children of secondary school age, on the other.

The present is an era of opportunity for the small high school. Let it recognize its necessary limitations; let it explore its possible field; let it undertake to realize its unquestionably great possibilities.

For the sake of calling forth discussion, and as a means of indicating his own growing convictions, the writer wishes to support the following theses relative to an effective functioning of the small high school. These theses are not designed to serve as a basis of plans and programs of action for the present, but as fragmentary contributions towards a theory of secondary education, which may eventually become the source of such plans and programs.

1. The small high school must remain primarily a school of liberal, as contrasted with vocational, education. Effective vocational training in any field is practicable only with specially prepared teachers, special equipment, and specially arranged conditions. Attempts

at genuine vocational education in the small high school, as commonly organized, whether in agricultural, industrial, commercial, or household arts subjects, are foredoomed to failure unless carried on in fully specialized departments. Otherwise the so-called vocational training which results is likely to be a sham and an imposition.

2. On the other hand, every small high school should maintain work in one or more lines of practical arts, but avowedly with reference to the possible contributions of the subject to the valid ends of liberal or general education. Manual training, household arts, agriculture, and such commercial studies as typewriting and elementary bookkeeping can be made valuable factors in liberal education; and they will also make incidental contributions to vocational ideals. But it is important that neither the community nor the pupil be deceived into thinking of any of these subjects, when pursued a few hours each week, as developing genuine vocational skill and capacity.

3. The small high school must recognize that preparation for college is, for a small but important minority of its pupils, a necessary and valuable function; but it must equally recognize that for a majority of its pupils preparation for the realities of the cultural and civic life of the local community is a supremely important purpose. It must learn in addition that, even in view of the greatly modernized college admission requirements now being developed, the two aims are not to be realized through the same means and methods. In the high school the future college student should learn the use of certain tools which for the boy not going to college will be needless.

4. The small high school must especially learn to serve, and in growing measure as standards of living improve, the needs of a very large class of boys and girls hardly yet recognized in American secondary education — those, namely, who will, and probably should, leave school at or near the age of sixteen, the age at which, through all the periods of civilization, the vast majority of young people

have begun serious participation in the vocational occupations of life.

5. The small high school, and it is to be hoped the large also, must learn that in the liberal education of young persons two quite different methods of approach are required as between different subjects, and often between unlike phases of the same subject. Naturally, the provinces for the two types of methods shade into each other and sharp distinctions are undesirable, even though for purposes of description they must be temporarily drawn.

The first type embraces those methods of teaching, the largest outcome of which is appreciation. The satisfaction of natural or induced curiosity, the nurture of the native instincts towards unforced growth in feeling and intelligence — these purposes should control in this phase of instruction. A child hears a story or song, reads a book for pleasure, makes an excursion with a friend, attends a good play or moving-picture show, visits a picture gallery, listens to an illustrated lecture on a scientific subject: the net results of these

experiences and contacts are new accessions of resources of intellect and feeling, with perhaps little gain, relatively, in ability to organize, express, and apply the knowledge and sentiment thus developed. For lack of a better term, we may call the educational ends and methods here illustrated those of appreciation.

The second aspect of method appears when the definite purpose of teaching is the development of power towards execution or expression of some sort. The study of a foreign language should result in ability to use it; of mathematics and science in advanced stages, in the ability to organize and apply to further pursuits the knowledge thus obtained. Any extensive development of cultural or civic (to say nothing of vocational) power requires the strenuous and purposeful mastery of what may be called intellectual tools, methods, and materials. This mastery can be achieved, as a rule, only when the learner is in a willing or coöperative attitude. The high school of today, by its methods, seems, in all subjects, to aim mainly at power in execution or applica-

tion, but its methods are as yet not consciously pedagogical. The result is that it finds in its pupils an absence of interest and an indisposition towards self-help.

Of the two methods of learning here contrasted, the first deliberately invokes and sustains the relatively spontaneous learning capacities, and organizes means and methods towards that end; while the second utilizes processes of learning that are relatively artificial. The average textbook in science presupposes the second rather than the first method. In fact, but a small part of high school education, as organized, is directed to what is here called learning for appreciation. The unorganized activities of English and American secondary schools are, on the other hand, full of such spontaneous elements, notwithstanding that such activities as these are often the reverse of uplifting. A very real pedagogic difficulty in organized secondary education yet exists in the imperfect adjustment, or in the lack of adjustment, of the two kinds of training.

The writer believes that in, at least, the

introductory stages of literature, general science, social science, and practical arts, when these subjects are designed for students likely to leave school early, the controlling end should be deep and varied appreciation; whereas in vocational subjects, in English expression, and in the later stages of science and mathematics, the controlling purpose should be power in application, expression, and execution. Until the distinction of method here suggested is developed, it seems unlikely that the small high school can do much for true culture and social development as ends of secondary education. It should not be forgotten that a large part of what we vaguely call culture springs from the first method, and, perhaps, from it only, but only when interest and self-active effort are enlisted.

6. The small high school must recognize that with respect to the means and methods of stimulating interest and appreciation it has a relatively wide field, whereas in the matter of subjects and phases of subjects calling for power in application and execution its limita-

tions are pronounced and besetting. Lectures, pictures, musical recitals, moving-picture presentations, good libraries, excursions, participation in civic activities, interpretations of science by talks and readings, activity in some phase of practical arts by means of participation on the amateur's level — all these may prove rich and easily accessible sources of culture. But mastery of a foreign language, systematic study of literary selections, drill in the arts of vernacular expression, laboratory exercise in science work, and productive effort in some field of the practical arts all require specialization of teaching power such as the small high school can only to a limited degree afford. In power-producing studies, as contrasted with appreciation-favoring opportunities, the small high school must restrict its field to what it can do well.

What, then is the minimum curriculum a small high school can have and fairly meet the above ends? The writer believes that the following most nearly serves these purposes: —

FIRST AND SECOND YEARS

Non-College-Preparatory	College-Preparatory
1. English literature	6. English literature (1)
2. English language	7. English language (2)
3. General science	8. Selected from (3–5)
4. Social science	9. Mathematics
5. Practical arts	10. Foreign language

THIRD AND FOURTH YEARS

11. } Selected from college-preparatory courses (16–20)	16. English literature
12. }	17. English language
13. }	18. Science
14. }	19. Foreign language
15. Practical arts	20. History

This proposed curriculum for the small high school presents two programs of study. The first is designed for youths not seeking college preparation, but intending to terminate their general education during or at the close of the high school course; while the second is planned to provide adequate preparation for college work.

But a further distinction is apparent. The first two years' work of the high school is organized primarily to minister to the needs of those who will probably end their general education at or about sixteen, but on the

assumption that a portion of such work will also prove valuable for those who are probably destined for college. On the other hand, the last two years of the curriculum give prominence to considerations of college preparation, with the understanding that for the student who continues in school without intending to enter college the college preparatory studies, while perhaps not the most valuable, are in the small high school the most effective provision that can be made. An analysis of the curriculum into its constituent elements will make this general distinction clearer. It will be understood that the dogmatic and direct form of presentation is rendered necessary by the space limitations of the present paper.

1. The two-year course in English literature in both programs should be, in content and method of presentation, such as intelligent persons, solicitous, on the one hand, as to the establishment of good tastes and standards of judgment in general reading, and on, the other, acquainted with the strong inter-

ests and the general learning capacities of young adolescents, would design for those youths who will probably terminate their liberal school education at or about sixteen years of age.

We do not yet know in detail what such a course should contain, nor have we much available knowledge of the methods that would be appropriate in its presentation. In this matter, our college professors of English can as yet, because of their scholastic associations, give us but little help; and it may be doubted whether even high school teachers of the subject, as it is now organized, with their established prepossessions, can give satisfactory guidance.

It may well be doubted whether the so-called English classics should figure largely in such a course. It would appear self-evident that it should contribute to evident elevation of taste in the reading of contemporary literary productions, as found in newspaper, magazine, and book form. It would appear to be folly to endeavor to secure, at large expense

of time and energy, and with uncertain results, abiding interests in fields into which the large majority of fairly well-educated people do not even now habitually enter.

Furthermore, it may be questioned whether in this course literature should be at all closely correlated with the study of oral and written expression in the vernacular. The writer believes that careful study would show that in most American high schools to-day the intimate correlation of language study and literature, such as prevails in the general subject called English, results neither in literary appreciation nor in powers of effective expression. The two purposes require for their attainment very different pedagogic methods; and it may be doubted whether the same teacher should, as is usually the case in high schools, teach both subjects. At any rate, in English designed solely "for life," literature and the arts of expression should receive independent consideration.

2. In contrast with the study of literature, in which the controlling aim should be appre-

ciation, the study of (English) language in this program should be designed mainly to give power in the arts of expression in English, and on a level appropriate and practicable for that large majority who are to have no college training. Here, again, few if any precedents exist. The pedagogy of the problem has not been studied because the problem itself has not as yet been clearly differentiated and formulated.

3. After literature and expression in English, no subject has a more appropriate place in a program of liberal education designed primarily for persons destined probably to enter upon practical life at sixteen than general science. This science cannot be psychology, or botany, or zoölogy, or physiology, or physics, or chemistry, or geology, or astronomy, or geography, but should consist of large units or topics from several or all of those subjects, and all presented from the standpoint of appreciation and insight, as contrasted with power to use. Little organized material for teaching purposes in this field is

yet available, and progress will be slow until there is developed a vital pedagogy of secondary school teaching. In general, the science subjects contemplated should aim to interpret the significant phases of the material environment of the youth, so far as his capacity normally permits; and this process should produce large appreciation, permanent interests, and a measure of insight.

4. No less indispensable to the liberal education of American youth than general science is social science, meaning thereby that appreciative understanding of the social environment which is essential, not only to citizenship, but to effective living. For this subject neither content nor method is yet available. A limited amount of civics is, of course, found in American high schools. Increasing attention has, in recent years, been given to history, but the advocates of that study in the secondary school have, as yet, been unable to show us how it actually "functions" in any kind of civic or social efficiency. Perhaps it is not intended to do so, but the other purposes, whatever they

are, should be defined and proved valuable; otherwise the subject is in danger of being relegated to the museum of discarded educational machinery.

But whether our leaders in history teaching will have it so or not, those who can detach themselves from educational traditions and who are accustomed to face the facts of youth and society know that a two-year course constructed of suitable units from civics, economics, ethics, and other constituents of social science, enriched with vital and pertinent contributions from history, both that which is made and that which is to-day making, can be devised. They know, furthermore, that such a course, planned for youths from fourteen to sixteen, can be made to yield valuable contributions to moral and civic capacity, as well as to provide a background for future vocational studies. Teachers for this work are not yet available; nor are manuals and textbooks; but given the right conception of the pedagogic need and method, these things will soon follow.

5. The small high school cannot be a vocational school in any true sense of that word, but this does not mean that it shall forego all attempts to keep its boys and girls in contact with the practical arts by which men and women must live and which are therefore, like the earth beneath, the sky above, and the social life all about, among the great realities of life. That is no liberal education which ignores the possibilities that adolescence presents, of an illuminating and inspiring contact with those realms of achievement wherein men control the material world to the uses of humanity. In this general subject, contact and participation on the amateur's level are the essential basal elements of method.

Under practical arts we may recognize four distinct departments — namely, agriculture, the industries, the commercial occupations, and the household arts. A small high school can, even when articulating its work closely with similar work in the upper grades of the elementary school, carry but one or two of these divisions. In a rural community agricultural

and household arts training might well comprise all the practical arts work.

The controlling aim in this field should not be direct vocational skill or even knowledge designed to be applied in specific callings, but rather the broad, appreciative insight and sympathetic contact which will result in high standards of utilization and a measure of vocational idealism. Units of work, each leading to visible and serviceable achievement, should be made available for the youthful amateur's contact with human vocations; and these should constitute ports of embarkation for excursions into fields of related art, history, economics, science, and mathematics. It will be observed that the non-college-preparatory program contains, in the first two years, no mathematics, it being assumed that the needful mathematical practice for those leaving school at sixteen can be obtained in conjunction with the practical arts work.

6–10. During the first two years of the high school curriculum, students desiring to prepare for college should take mathematics

and a foreign language; and also the two English branches and one other subject from the non-preparatory program. The study of mathematics and the foreign language should be designed to give direct power in the use of these subjects as tools in college work. The teaching should be intensive, the standards high, and, in mathematics, at least, acquaintance with the methods of using the subject as an instrument should be made concrete, perhaps along lines suggested by the Perry movement in England. But to students probably not going to college it should be made clear that high school mathematics, as the subject is customarily presented, has probably little educational value in comparison with other subjects which should be available.

11–14. During the third and fourth years of the curriculum, the small school under consideration can well afford to give its chief consideration to the minority (perhaps by this time a majority) of its pupils who contemplate study beyond the high school. But, if equip-

ment and other facilities permit, boys and girls not seeking college preparation should have opportunity to supplement a program made up of selected studies from the preparatory list, with practical arts courses. Conceivably these might be made to assume the character required to produce vocational efficiency, in which, by a part-time or other arrangement, half the student's time might be given to practical and productive work in the calling selected, and a portion of the remainder to related technical studies. But this could be accomplished only through special teachers and modified internal organization of the school.

16–20. Third and fourth year preparatory subjects should, in content and method of presentation, follow lines adjudged sound by college authorities as means of college preparation. The foreign language begun in the first year is here continued with a view to giving a genuine mastery of that subject; English, as a study of literature and of the arts of expression, is pursued intensively; while science

and history are also so taught as to produce power in using these subjects as instrumentalities.

In this connection attention should be called to the preposterous attempts on the part of small high schools to teach two or more foreign languages. Seldom have such schools the means of teaching one at all adequately; but it is unbelievable that so many of them should palm off on the public so-called Latin, French, and German teaching which is not even a fair imitation of language teaching according to any adequate standard. Let the small high school never attempt more than one foreign language; let it teach that intensively through four years; let it permit no pupil to continue in the subject who has not real capacity for it; and, incidentally, let the school obtain as a teacher of this subject one who knows something about it — if a modern language, one who can understand and use it. Americans are hospitable to shams, and yield to self-delusion no less in education than in other matters; but in no other respect are we more

imposed upon than in the high school teaching of foreign language.

The foregoing hypothetical organization of a high school curriculum is presented with a view to eliciting discussion and constructive suggestion. It cannot be regarded as a program of action for the present time — it contains too many features which are yet ill-defined and in need of experimental demonstration. The writer hopes that within the next few years considerable progress will be made in testing particular phases of this and similar plans. Already, indeed, there are many enterprising and careful teachers who are seeking to reorganize special subjects. General science suited to the first and second high school years — have we not already some foreshadowings of possible courses in this field? Here and there are English teachers who are feeling their way towards a fuller and richer utilization of the world's store of reading-matter as a means of developing genuine culture in the case of youths of fifteen or sixteen years of

age. Even in the ill-defined field above called social science, we have in many current examples of the teaching of civics, local economics, industrial history, and ethics, and in the purposeful development of the historic sense, and the conscious kindling of social ideals, instances which show what may eventually be done in a broad program of the wider civic or social education.

Can the small high school carry out the proposed program? It is certainly not more pretentious than many now followed. By a proper alternation of studies by years, two teachers should be able to present all the subjects, although, manifestly, these teachers will carry heavy loads. But on what other terms can we obtain an effective secondary education for the sparsely settled community? There are various needs to be met, of which preparation of a few students for college is not the most important. Let the small high school learn to define and meet these needs; let the makers of textbooks, manuals, and programs of secondary education realize the opportuni-

ties which are now offered to develop a more effective scheme of liberal education in the thousands of small schools in America; and let educators define and elaborate the purposes of true liberal education. The problem of an efficient secondary education even in the small high school is not an insoluble one.

VIII

DEBATABLE ISSUES IN VOCATIONAL EDUCATION

EDUCATION is a complex and difficult subject. Vocational education — which is but one of several kinds of education — is itself intricate and presents many unlike phases. We have now passed through the stage of propaganda in vocational education and we may expect that henceforth progress in its theory and practice will come largely as we disentangle elements of the general subject, segregate particular issues, and analyze the problems into their component factors. Some of the problems of vocational education require no further debate among well-informed and progressive men. But there are other issues which still need close study, and with reference to which marked differences of opinion should be expected.

The following are some of the principles in

regard to which we can assume that intelligent persons are substantially in agreement, or at least that agreement would follow an understanding of the development of the theory and practice of vocational education in Germany, Denmark, France, Scotland, and America during the last dozen years.

1. The presence in any society of a relatively large proportion of skillful and intelligent workers, and directors of these workers, constitutes a national asset; and any country permitting a large proportion of its youth to grow to maturity untrained as regards skill, unformed as regards habits of industry, and unintelligent as respects economic processes, is thereby impairing the quality of its national endowment.

2. Economic changes and the advance of scientific knowledge have rendered relatively ineffective such historic non-school agencies of vocational education as the workshop with its apprenticeship system, the farm, and the home. The average youth of to-day has, on the whole, less opportunity to learn the arts

of industry under controlled conditions than had the youth of a century or more ago.

3. For many callings, at least, vocational education can be carried on in specialized institutions or schools wherein the controlling object is to produce recognized types of vocational efficiency.

4. It is in no way inconsistent with accepted ideals of public policy that the State should support and control schools for vocational education; and the limits to such support and control are to be found only in the effectiveness of the work which such specialized institutions can be made to do.

5. Vocational education under school conditions cannot be carried on by the methods and agencies that have become familiar in connection with general or academic education. Vocational education requires the evolution of means and methods peculiar to itself, and, to a degree at least, quite dissimilar to those found in general education.

6. Effective vocational education presents three distinct aspects, namely, practical partic-

ipation in productive work; technical studies related to the productive work; and general vocational studies designed to enhance vocational intelligence and ideals. For many callings and for various grades of natural ability the right conduct of vocational education requires that practical participation in production should be the basis upon which are to be built technical studies and the related general vocational studies.

7. Little can be done effectively in the direction of "generalized vocational education" or education by a series of exercises designed to prove equally adapted to preparation for a variety of callings; hence, general courses in drawing, mathematics, manual training, commercial studies, applied science, agriculture, etc., however much they may seem to imitate the procedures of a true vocational education, are, nevertheless, usually ineffective and uneconomical as contributing to vocational efficiency.

8. The principal elements of vocational education can only be imparted by persons who

are themselves masters of the craft or the calling which is to be taught.

9. A rightly organized and effective vocational education makes important contributions to mental development, to the establishment of cultural interests, and to the development of civic capacity. These are, under right conditions of teaching, important and valuable by-products of vocational education.

The general acceptance of the foregoing principles serves to some degree to define the sphere and necessities of vocational education. It must be looked upon as a social necessity in proportion as, on the one hand, skill and intelligence on the part of the worker constitute both individual and social assets, and as, on the other, historic agencies prove unable to meet these needs. Vocational education in any and all practical forms is as much entitled to state support and control as any other form of education. The final test is a lofty social expediency. Vocational education and liberal education require essentially unlike methods, and it may be expected that, as a

rule, teachers habituated to the procedures of the one will prove correspondingly unadapted to the necessities of the other. Generalized forms of so-called vocational education are apt to be as ineffective for vocational purposes as would be the procedures of liberal education itself for this purpose, owing to their lack of adaptation to specific ends and their failure to "function." Hence, in the promotion of vocational education the traditions of manual training, drawing, mathematics, commercial teaching, etc., must be taken with large reserve. Vocational education must find its point of departure primarily in the various divisions of the active world of productive effort — the occupations which men and women now follow. From these it must in each case work back and so elaborate the means and methods capable of producing a fairly high and enduring type of vocational efficiency. The final test of vocational education is the degree to which it is able to connect itself with right standards of efficiency in the economic world. To this end not only is it

necessary that the principal teachers should be skilled workers themselves, but that also every separate vocational department should hold itself close to advisers who are employers and employed in the industry.

Among the debatable issues of vocational education the following may be said to claim immediate attention, since the organization and administration of vocational schools now being founded will be determined largely by the answers to the questions raised.

1. To what extent and in what ways can day vocational education and liberal education be carried on together or in close connection?

As long as boys and girls are under the direction of the State in public schools it seems to many persons desirable that some portion of their education should be directed purposefully towards the end of culture and citizenship. The authorities in charge of vocational schools, therefore, feel constrained to set apart a certain amount of time for purposes of liberal education.

But experience is demonstrating that in the initial stages of vocational education a large degree of concentration on the work at hand is essential on the part of the learner. A variety of school habits acquired in the processes of obtaining a general education are antagonistic to a workmanlike attitude. Efficiency in any vocation requires the early formation of a variety of special habits of attention, application, order, thoroughness, and industry. These are by-products and can be developed only under conditions approximately those of the workshop. For the beginner in the shop, surroundings, clothing, hours of work, rate of output, attention to detail, and salability of product should be those found in the world of practical affairs where young persons begin productive work. Any other standards will lead to trifling, to dilettantism, and to the formation of bad habits.

Hence the necessity that in vocational schools the standards of vocational education should control to the degree found essential to the development of vocational efficiency.

Given this condition, place may be found in the program for some general education, but the latter must be so organized as not to interfere with the systematic vocational work. For example, studies not connected with the processes of vocational training should probably not be followed during the active working day. For older pupils such studies might be arranged to fall outside the regular working hours, in the afternoon or evening.

In an industrial school boys might be encouraged to form reading or musical clubs for purposes of self-culture, some of which might meet in the evening. Classes might be organized for the teaching of literature in the evening to boys engaged in vocational schools during the day.

It is doubtful if at any time hours should be taken out of the working day for systematic training in general subjects, owing to the injurious reaction such an arrangement would have on the program of vocational education. In actual life the vocation must claim those hours of the individual's time when the work-

ing energies are at their maximum strength. Leisure hours in afternoon and evening, and holidays, can be devoted to cultural purposes. The program of the vocational school should approximate the program of action to be called for by the working world. This does not mean, of course, that those contributions which a well-developed program of vocational education can make to civic training and to the development of culture are to be ignored or neglected. In fact, it is certain that a rightly organized system of vocational education will do much, as was previously indicated, to develop culture and civic capacity.

2. For what callings is systematic vocational education under school conditions possible?

It has long been obvious that vocational education under school conditions is possible for many callings. Medicine, law, theology, war, engineering, and teaching have already committed much if not all of their systematized vocational training to schools. In agriculture, some of the commercial callings, and such trades as plumbing, bricklaying, electric-

wiring, sign-painting, machine-shop practice, cabinetmaking, printing, and others, many examples now exist to show that vocational education for the rank and file of workers, to the extent of from one half to two thirds of the usual apprenticeship standard of accomplishment, is entirely feasible in schools.

Whether schools can be organized, the training of which will prove of value, from the standpoint of the individual as well as from the standpoint of the industry, for such occupations as those of the sailor, the locomotive engineer, the salesman, the teamster, the motorman, the miner, and the workers in our innumerable specialized manufacturing industries, is still a question. It is believed by some that where machinery has been much perfected and where there is a progressive tendency to employ highly specialized workers, industrial efficiency is largely a question of organization rather than the training of the individual worker. On the other hand, many persons believe that for almost any type of productive work a large amount of training in the special

habits of industry and application as well as in industrial intelligence is possible in specially arranged vocational schools.

Social questions are here involved which are as yet obscure. For example, it may be said that present-day manufacturing industries have adapted themselves to an existing unskilled labor supply, but we have no evidence yet as to what those same industries would do if they could employ as workers persons more mature and better trained.

Where highly specialized industries are able to take advantage of the labor of women or youths, evidence is still lacking of the extent to which such employment entails a social loss in the shape of large numbers of persons who become prematurely unfitted for any productive industry and become perhaps a burden on society. Granting that an organized system of vocational education might not result in the immediate enhancement of vocational efficiency in the specialized employment of the kind here described, it is yet not impossible that it would result in a permanent enhance-

ment of ultimate efficiency to such a degree as more than to justify the outlay involved. Furthermore, training of the right sort might enable young workers to fit for other and more suitable occupations.

It is the writer's conviction that in the course of time we shall learn that for highly specialized occupations, in which no special training seems to be immediately necessary, nevertheless, vocational training along the lines of some productive employment, which would suffice to establish habits of industry, application, and an attitude of industrial intelligence, would amply justify any fair outlay, provided such training were practical and, perhaps, opened the way to more advanced occupations.

In view of our uncertainty regarding the extent to which vocational education is possible along lines hitherto undeveloped, a wise social policy should open the way for experimental schools. There is no reason why a vocational school, on a small scale, should not be established wherever a well-developed industry seems to offer openings for persons of training

and intelligence. Probably, as will hereafter be shown, the most effective approach may be through part-time schemes or evening classes, at least for the more mature young workers who can thus, on the one hand, have the advantage of shop experience corresponding to that which prevailed in the days of apprenticeship, and, on the other, a careful training in related processes and subjects to the end that broader vocational efficiency may result.

3. What can be done for purposes of vocational education in the case of both boys and girls from fourteen to sixteen years of age?

It has become an established feature of American public school policy to insist on reserving the years to fourteen for purposes of general education. On the other hand, in many callings wherein young persons may be expected to find prolonged employment, entrance before the age of sixteen is not permitted, sometimes owing to protective legislation, sometimes to custom, and sometimes to the proved inability of the worker under

this age to handle the required work effectively.

Many persons still believe that the period from fourteen to sixteen will ultimately be reserved for the purposes of a further general or liberal education. This anticipates a time when the economic necessity for early employment will not be so pressing as at present. Others again are of the opinion that during those two years it will be possible to find some forms of vocational education which will lead to a considerable degree of effective preparation for a variety of callings.

Contemporary experience seems to show that for large numbers of boys and girls it is not only economically, but educationally, important that shortly after the age of fourteen they should find themselves in an atmosphere of productive work, whether that be in a vocational school or in actual employment, and that it is the function of the educational system to utilize these years for the purposes of laying broad foundations for future vocational efficiency. It is entirely possible that experi-

ence will show that the most profitable vocational education can be accomplished by taking the boys or girls during these years and giving them quite specific training for some definite occupation, not necessarily with the expectation that such occupation will invariably be followed, but for the purpose of having specific educational goals and of being able to test the efficiency of means and methods followed. Persons with long experience in industrial training, or in the pursuit of the industries themselves, often assert that what they seek in their young employees is not so much specific skill for the work in hand, but a variety of industrial habits, such as orderliness, thrift, industry, appreciation of rate of work, and other similar qualities. These cannot be produced by means of the manual training courses now in vogue in some schools or by means of the ordinary procedures of general or liberal education. It seems much more probable that an effective program of vocational education for one calling may lay the foundation for these habits in such a way that

they can be in a degree transferred to another. We may have parallel examples of this in the fact that boys trained on the farm are so often able to adapt themselves to various industrial callings with a large degree of success. We find further evidence in the fact that those young persons who succeed in one line of apprenticeship often rise to a considerable degree of success in another calling.[1]

It now seems probable that for purposes of genuine vocational education there can be no effective substitute for a systematic striving towards vocational efficiency in some distinct lines or fields of work. Only in this way can active motives be enlisted. Only in this way can the constructive activities of youth be taken advantage of and the strong desires of most young persons of fifteen years and over to do real work in the world be utilized. This may mean that we shall find it expedient to take youths under sixteen and give them

[1] The tentative solution here proposed has been seriously called into question by some of the most intelligent leaders in vocational education. The writer suggests it, however, for further discussion.

opportunities to procure vocational training in trades or vocations that prove most teachable under school conditions, in the expectation that, even if they do not follow the activities for which they have been trained, they will, nevertheless, have acquired a large equipment of habit and insight which are of advantage in many related fields of possible employment.

It is probable that even where the years from fourteen to sixteen can be given to general education including courses in the practical arts, the latter will, in their successive stages, approximate the conditions of productive industry enriched by broad appreciation and made intelligible by instruction in principle.

Any plan for vocational education of young persons must, while early giving attention to practical productive work, also aim to produce the ideals and wide knowledge which relate to vocations for which preparation is being made. Vocational knowledge and intelligence, however, must grow out of the conditions of the productive work. Therein are to be found the sources of its growth, as well as the centers of

evolution for vocational intelligence, adaptiveness, and enthusiasm. This leads to a consideration of the next important debatable issue in vocational education.

4. How far, in the successive stages of day vocational education in schools, shall emphasis be laid on productive work, and how far on studies and practices, which, while not constituting productive work, are nevertheless designed to enlarge in a permanent way industrial intelligence and lay broad foundations for future skill?

It will be recalled that one of the battles that had to be won with reference to vocational education was the establishment of the idea that a considerable part of this training must be under conditions approximating those in the industry. Hence, not only must there be advisory committees composed of persons actually concerned with the industry, and teachers who themselves have been trained in the industry, but also other conditions approximating those of commercial establishments should be provided. Shop hours, shop

clothing, and provision that a considerable part of the product shall be capable of being marketed were insisted upon.

In the earlier stages there was a disposition to regard the concrete or productive work as an incident in the process of vocational education. Later the proposal was made that approximately half the time given by the youth to vocational education should be confined to productive practical work, the remaining half to go to the related general and technical vocational study. Recent experience seems to show, however, that during the initial stages of industrial training far more prominence should be given to participation in productive work than has hitherto been assumed. In fact, in view of the habits and attitude brought to the vocational schools by the pupils coming from the elementary schools, it seems desirable that there should be a fairly sharp break with the methods and traditions of academic training. It seems desirable that, even as a measure of administration, it should be insisted that during the boy's first few months of attend-

ance in the industrial school his time and energy should be almost wholly absorbed in mastering the elementary conditions of productive work. Hence, it seems desirable that he should spend perhaps the full working day in the workshop under shop conditions; that mathematics, drawing, and such other subjects as he should employ in connection with the productive work should be taken incidentally from that productive work; and that with regard to dress, habits of work, etc., he shall become, as it were, completely adapted to the atmosphere of the shop.

Experience seems to show that, during the early stages in vocational training, the fundamental interests in the case of most youths center in concrete productive work; and that where they do not do so it is desirable that such interests should be established. When, through a few months' concentrated experience, the learner has fully grasped the practical principles of a definite calling, and has developed a definite amount of skill therein, the time is appropriate for a wider treatment of

the subject. After this it is possible to begin studies of those phases of drawing, mathematics, and other subjects which have a distinct bearing on the vocation for which training is being had, and which are closely related to the projects already worked out. Under these conditions, it becomes practicable to develop, in connection with a somewhat less amount of productive work, the studies which relate to it, and for which, as time goes by, separate provision can be made in classrooms under charge of teachers who may, in some instances, confine themselves to purely technical subjects. It seems highly probable that in this way a thoroughgoing and honest vocational education can be started. Furthermore, as the students progress through this course, some will drop by the wayside, and those who have the qualities most suitable for the making of foremen and other leaders will continue; and for these a further development of the more abstract and technical studies will be highly desirable. Such a course as this does not lead to any loss of time on the

part of those who have neither the capacity nor the inclination to remain a considerable time in the school. On the other hand, it also makes ample provision for the development of those having qualities and inclinations making for the development of a higher type of efficiency.

5. How far can the economy and effectiveness of vocational education be increased by coöperative arrangements for part-time work between industries and the school system?

Vocational education, if it is to have specially equipped working establishments wherein all of its phases may be effectively carried on, will prove expensive. Furthermore, in many instances the school will find itself at a relative disadvantage in providing the conditions of productive work and in disposing of the product.

Logically, the simple program of vocational education would seem to be that which would provide for the acquisition of practical experience in actual workshops, and for the processes of related instruction in schools.

The problem seems to be to a large extent

one of coöperation. It is obvious that in any part-time education the youth's practical work should be so adjusted that he may pass on from stage to stage, in order to acquire the solid experience necessary as a foundation not only for subsequent development but for his technical studies. But the policy of shifting the young worker from job to job, in order that he may acquire a wide range of experience, may, it is claimed, interfere with the discipline of the workshop and its organized productive processes.

Furthermore, it is necessary that the school should be in a position closely to relate its work to the practical experience of the student. To accomplish this under the school conditions requires that teachers themselves should be in close touch with, if not in actual participation in, the productive work of the establishment.

Coöperation to accomplish these purposes is entirely possible, but it is difficult to achieve. Logically, a part-time system promises the maximum of result in the way of vocational

training. It insures the practical and direct character of such training. It compels the youth to feel from the start the moral and intellectual conditions of the industry into which he proposes to go.

It is not impossible that the ultimate solution of this problem will be found in a variety of flexible schemes adapted to specific industries. For example, in the machine-shop industry generally it may prove most effective to have the period from fourteen to sixteen given entirely to vocational school training with strong emphasis placed on the practical work, that at the close of this period of school training some of the boys will enter shops, reserving some hours for part-time work or taking evening classes for purposes of advancement; and that, on the other hand, those most capable of abstract thinking will continue in studies of a much more technical, as contrasted with work of a practical, character.

6. In evening vocational education, how far is it desirable that the program shall involve topics or units of training that are short,

specific, and the outcome of which can be clearly understood by the learner?

It has hitherto been customary in organizing programs of evening vocational work for persons already employed to confine such courses to the more abstract studies, such as drawing, mathematics, applied science, accounting, etc. In later developments, a certain amount of shop practice has also been introduced, but this likewise has been of a more or less general nature, intended to give the progressive learner familiarity with general principles.

Experience now demonstrates, however, that, considering the type of worker coming to the evening classes, and taking account also of the needs which he presents, it may be desirable to organize evening work on a very much more concrete basis, and particularly in units so short and specific that the learner himself may not only easily comprehend their bearing on his particular needs, but may be able, within limits, to test himself as to his progress in mastering that which is presented.

Hence, there seems to be every reason for believing that evening vocational work should, to an increasing extent, organize itself in the shape of specific units of achievement in mathematics, drawing, science, etc., which have an immediate and direct bearing on the work which the person is following during the day. Machine-shop practice and the learning of specific operations might also be arranged for in evening classes, provided that the work is so organized that the learner may, for example, in a course of a dozen lessons or six weeks of attendance, find himself gaining in specific power.

The objection, of course, may be made that no general preparation can come from such a procedure as this. Experience, however, shows that most learners will gradually build up, as it were, a series of units of effective power when the training is thus organized.

The foregoing are a few of the problems of vocational education with reference to which there is now needed fuller analysis, discussion,

and experimentation. A large amount of money will be invested in this form of education within the next few years; state and even national policies will be formulated; and a variety of unworkable proposals may be expected. The time is more than ripe for a closer study of various special phases of the general subject.

IX

PROBLEMS IN THE PSYCHOLOGY OF VOCATIONAL EDUCATION

WITHIN recent years the term "vocational education" has come into fairly common use as designating any kind of education whose controlling purpose is to give preparation for recognized callings or groups of related callings. Medical and other forms of professional training, education for the various commercial occupations, specialized preparation for the trades and manufacturing pursuits, agricultural education, nautical education, and training for the arts of the household — these are all, where organized towards a preconceived end of efficiency in useful employment, forms of vocational education.

There is a sense in which it may be said that vocational education has always existed and is even now universal. All persons, except infants, the aged, and other helpless members

of society, have always had to exert some strength, skill, or cunning in obtaining a livelihood, and for this they have had to have powers based on active bodily and mental capacities, on the one hand, and experience, accidentally or systematically acquired, on the other. Strictly speaking, there is no such thing as "unskilled labor," but there is much brawn and experience in the labor markets of the world which is available for fairly ready transfer to various occupations requiring only the more common forms of strength, skill, and intelligence — qualities which are more or less automatically produced through the growth processes which bring such native instincts as imitation into conjunction with society's customs.

But it is also true that vocational education of a more or less purposeful sort has long existed. The widespread disposition of elder workers in all ages to enlist in useful employments, first by suggestion and then by coercion, the efforts of children is the result of a genuine teaching instinct. The learning instincts

of youth are always complemented, in the social order, by the teaching instincts of the mature, manifested by parents and others in the social environment. The rites of initiation, while often religious or cultural in their conscious purposes, not infrequently had an intimate bearing on some vocational capacity, like that of soldier, hunter, sailor, craftsman, tiller of the soil, or household worker. It is historically certain that the vocational education of the Middle Ages — that of the professional orders (priestly, military, medical, etc.), commercial guilds, and crafts guilds — was the most elaborate the world has yet seen. It was fortified and elaborated not only by the customs and ideals of the period, but by carefully worked-out legislation.

When, therefore, we discuss current problems of vocational education, it should be with a full appreciation of the widespread historic and also contemporaneous existence of unnumbered forms of such education, many of them doubtless more or less imperfect, inadequate, and decadent. Our discussion assumes

the probable evolution of specialized agencies, namely, vocational schools, to procure the training for productive work which modern social conditions demand and for which existing agencies other than schools seem inadequate. We should furthermore recognize that for certain forms of vocational education — e.g., medical, legal, theological, normal, engineering, military, and some commercial — the usefulness of specific schools, as supplanting or supplementing the clumsy, if not futile, methods of apprenticeship or educationally unsystematic participation in the simpler stages of the employment, has long been accepted.

The modern demand is not for vocational schools for the so-called professional callings, for which, in the main, systematic preparation is now begun at the mature age of eighteen to twenty-two; it is for schools which shall give ordered and effective vocational training for younger learners, — those from fourteen to eighteen years of age, — and for whom the most promising callings are found in the more or less skilled trades, in commercial occupa-

tions, in agriculture, and in the household arts. Sometimes this demand is actuated by a conviction that the present non-school agencies are less effective than formerly, both in producing efficient workers and in saving boys and girls from submergence in unskilled and insufficiently productive labor; and sometimes by a recognition of the fact that in many contemporary callings the entrance of applied art and science has been of such a nature as to create a need for new types of vocational education which can be procured only through school agencies.

Contemporary students of vocational education are convinced that it will introduce new and complicated problems of educational psychology. The elaborate mechanisms of liberal education which have long evolved in custom and theory and which are being but now slowly rationalized, such as textbooks, syllabi, recitation, lectures, memoriter tests, notebooks, blackboards, laboratories, specialized subject-matter logically organized, individualized study, imaginary contacts with concrete

situations, — all these will doubtless prove hopelessly inadequate to vocational education under school conditions, even though the persistent character of these mechanisms will constantly tend to be manifest. It is doubtful also, whether satisfactory precedents for method and organization of vocational education in the common occupations, with their large emphasis on skill, can be obtained from vocational schools preparing for the professions, partly because of the relatively academic character of professional education and partly because of the unusual type of mind found in the student qualified for and electing to pursue professional study.

The most fundamental problem in vocational education is that which relates to the place in such training to be occupied by actual participation in the processes of the occupation itself. The older forms of vocational education were based largely on such participation. The boy became a hunter by hunting, a weaver by taking the simpler tasks with his master, a

tiller of the soil by gradually absorbing knowledge and evolving skill as a co-worker with father or employer. But we now clearly recognize that certain forms of vocational power and flexibility are acquired with difficulty, if at all, under an apprenticeship system resting mainly on the psychological foundations of imitation and suggestion. These limitations are more acutely felt in proportion as, on the one hand, industry becomes departmentalized, and, on the other, as art and science become more purposefully applied. Herein is found the second large problem of vocational education. The workshop alone may give the prospective machinist skill in tool manipulation, but it cannot give in any effective way the mastery of drawing, of mechanics, of mathematics, of industrial economics, and of industrial hygiene, without which he has but limited capacity for growth or for playing any satisfactory rôle as citizen and master of his own destinies. The ordinary farm as an educational institution can give little of the science which the modern world places

at the disposal of the properly taught tiller of the soil.

In fact, in nearly all vocations there may be distinguished two types of elements, namely, skill and other products of direct experience in the occupation itself, and, in addition, certain types of knowledge, ideal, and power having form and content outside the specific occupation, but capable of application to it. The student of stenography learns English only to a slight degree in the study of stenography, but good English is essential to that calling and must be acquired either previous to, simultaneously with, or subsequent to the acquisition of skill in stenography. The carpenter needs drawing and certain forms of mathematics in his craft; the cabinetmaker needs design; the homemaker, various forms of science, such as bacteriology and chemistry, to say nothing of applied art; and the farmer needs economics, soil physics, and bookkeeping as tools of his calling.

Now, since it would appear that the intellectually prehensile powers of the youthful

mind are great and active, it is natural for an unreflecting pedagogy to seek the mastery of these more intellectual elements of vocational efficiency in advance of the youth's entry on the serious and more direct pursuit of his calling. Is drawing a useful tool to the mechanic, the weaver, the commercial traveler, and even to the farmer and the homemaker? Teach drawing, then, to youth in advance of his being summoned to the practical school of apprenticeship. Should the modern contributions of bacteriology be at the disposal of the farmer, the nurse, the food-packer, and the housewife? Teach bacteriology in the schools, say educational theorists, and thereby accomplish an important part of vocational training.

This method of approach, indeed, has been largely characteristic of those higher forms of vocational education called professional. The prospective engineer is first drilled in general mathematics, drawing, and other more or less logically organized fields of special knowledge and, occasionally, skill. The prospective medical practitioner first gives his attention to gen-

eral chemistry, biology, and physiology. The teacher's first year in the normal school is given to psychology, history of education, and other "basal" subjects.

It is not certain, of course, that even in professional education the above pedagogic order is the most effective. It may only be the one most available under existing conditions in professional schools and of educational tradition. Even now we see legal education substituting the "case method" for the dreary introductions through Blackstone and other purveyors of "fundamental principles." Dissecting-room, clinic, and hospital apprenticeship seem to play a larger part than formerly in legitimate medical education, and a metropolitan university now proposes to make actual service in water and milk analysis and other municipal activities in sanitation a recognized part of the training of those who are later to practice the arts of healing and of disease prevention. Laboratory, workshop, and summer camp are being more extensively employed in training engineers, and it would

appear that, barring here and there a defender of the old order, the professors in engineering colleges are attaching less importance, relatively, to the extensive preliminary study by their students of pure mathematics, pure science, and other "theoretical" subjects.

But whatever the case in professional education, there can be little question as to the futility, in the vocational education of youths from fourteen to eighteen years of age for the common occupations of life, of a pedagogy based on an initial mastery of the more intellectual elements of vocation. Experience has already revealed many impediments to the process. Neither motive nor ability, as found in such youths, is sufficient to enable them to master the fundamentals in science and art preliminary to the application of these in vocation. Professional students, as a rule, belong to an intellectually select class, distinguished largely by its capacity for abstract thinking and constructive imagination. Every step in the boy's "running the gantlet" from the primary school to the doors of the pro-

fessional school is designed to discover and promote these qualities. But the typical worker in the wage-earning callings is distinguished by his "concreteness" of mind. Skill in execution, not grasp of principles, is the demand made upon him by his nature, his surroundings, and the idealism of his calling. He can utilize, not the principal contributions of the sciences and arts, but important sections and suggestions, here and there, from them. The loom-fixer, the machinist, the farmer, the bookkeeper, and the chainman are greatly in need of certain specific helps from mathematics. Neither time, capacity, nor inclination permit them to seek their necessary needles in the haystack of general mathematics; they desire to leave the winnowing process to specialists (perhaps schoolmasters) with time and capacity for that sort of work. The farmer cannot be meteorologist, chemist, and biologist, but he needs certain "derivative products" from those sciences badly, and he claims that his vocational education should put him in possession of them. In the great majority of

everyday vocations, taking account of the qualities of those who are to follow them, the system of providing in advance the "intellectual" as contrasted with the "experiential" elements seems destined to failure. Some educators of shrewd insight suspect that this may also prove true in "general" or "liberal" education; but, whatever the event may show in that field, we are now compelled to assume that effective vocational education requires a pedagogy in which the results of practical experience in a calling shall be closely interrelated with processes designed to procure sufficient grasp of the more intellectual elements. This constitutes the basis of the several large problems of an educational psychology of vocational education.

Vocational education must either provide, or intimately relate itself to, the acquisition of practical experience, and it must discover ways of adding thereto the more intellectual elements without relying on the logical organization and external and detached character of the subjects making these contributions.

Theoretically considered, from the standpoints both of economy and of efficiency, it would seem that the most promising method of organizing true vocational education would be to allow the workshop, the farm, the commercial establishment, and the household to continue their historic educational function, namely, that of providing by actual work under normal conditions of employment the "experiential" basis, the vocational school, so-called, coming in to supplement with the appropriate "intellectual" elements. This arrangement, indeed, is that contemplated by the so-called "part-time" or "continuation" type of vocational training. The vocational evening school also exemplifies the application of this principle to the needs of more mature students. In practice, the weakness of joint or "coöperative" programs of vocational education of this sort is their lack of integration. The practical experience acquired in the workshop — here used as a general term for any place where actual experience in productive work is had under conditions commercially

characteristic of the occupation — is likely to be specialized and without educational sequence or organization. The school work is prone to develop a theoretic organization, with the result that its returns in knowledge, specialized skill, etc., may be more or less permanently placed in mental cold storage. Much evening instruction is of this "non-functioning" character; only the rare student can bridge the gap and carry his freightage of theory into application.

Even when we shall have reached a full social realization of the law that the plastic years of youth should be at least partly reserved for learning, and when employers and teachers shall have learned to coöperate in arranging that practical and productive work shall be made to contribute its best educational results, it may prove necessary in certain vocational fields to bring a workshop into the school in order to obtain a proper integration of practical and theoretic elements in vocational training. In the making of the stenographer, for example, this is now done, because

commercial "shop" conditions cannot tolerate the mere learner. In a hundred other directions this may also prove to be the case.

We shall have to turn eventually to educational psychology to assist us in organizing this practical work so as to get a working resultant between standards of skill, on the one hand, and extent of ground to be covered, on the other. How long shall the learning machinist use one tool in a single type of operation? Until he has skill and speed equal to the commercial demand, or only until he has a sufficient basis of experience to enable him to grasp the related supplemental studies and to start "right" in his later shop work? Only a scientific study of the problem by educators appreciative of the meaning of "industrial efficiency in the long run" can tell. In the mean time, without prejudice to what educational psychology and commercial demand may eventually prove to be the valid method, it is the privilege, if not the duty, of vocational teachers and of employers to continue to guess to the best of their ability.

But a still more serious problem for educational psychology is to be found in the "method" of organizing and presenting the more intellectual elements of the various vocations to young learners. Ages of experience in apprenticeship should have given us many clues to the organization of the practical side of the student's program. Schools of liberal education long ago established logical orders of subject-matter organization in the theoretic fields of the sciences, arts, and histories upon which vocational education must draw. But, as already indicated, experience shows that we cannot utilize these subjects as now organized in the training of the rank and file of workers. Few, if any, precedents yet exist for the organization of programs of study and practice in the more intellectual phases of vocational training. Tell a machine-shop instructor not to require of his pupils a systematic course in mechanical drawing, but to base a series of drawing lessons on the practical work which his pupils are doing from day to day, and he complains that they "must

first learn the principles." Tell a normal-school teacher that the best psychology of education, at least for normal-school young women, should probably grow out of and be built upon their daily problems of teaching, and he or she, too, will raise embarrassing questions as to terminology and "general principles," and will conclude by asking if any authoritative textbook exemplifies the "new method." Ask a teacher in an agricultural school, whose boys may be doing very practical and even scientific work (the result of suggestion), in growing corn and raising poultry, to forego the teaching of systematic chemistry, botany, physics, bacteriology, etc., in favor of "agricultural science," and he will look dazed, while forlornly and helplessly setting to work to do as he is asked. We are requiring these teachers to construct a new type of pedagogical material. Except in the primary school, educational psychology hardly furnishes even the help of analogous situations. Nevertheless, in the vocational school claiming to be effective we must fight persist-

ently for a new pedagogic organization of subject-matter wherein practice must form the groundwork and point of departure for the more theoretic studies. Ideally, we are seeking a program wherein concrete and vital experience, gradually interpreted and illuminated into a unity of skill and comprehension of principles in their application to the calling, shall be the outcome of vocational education. We dare not in genuine vocational education content ourselves, on the practical side of such training, with the fool's paradise of imitation and sham participation in the real work of life, such as manual training exercises, the sprouting of a few seeds, the embroidering of doilies, the making of pastries, and amateurish dabbling with typewriting and bookkeeping, nor shall we find in systematized mathematics, drawing, chemistry, economics, and kindred subjects the forms of organization and methods of presentation adapted to the need of our pupils. We are face to face with a new department of education, largely a modern development, wherein we have no more science

to guide us than in other departments and vastly less of tradition.

It may be hoped that because we have such a paucity of tradition progress will be the more rapid. If we could persuade a few investigators to take this as their field, such might be the case. Unfortunately, the harried teachers in our vocational schools can give little time to constructive programs, although it is hard to see how they can succeed in their work until they shall have accomplished something in this direction. The administrative authorities of such schools have their problems in forcing a place for the practical work and in preventing a relapse into the stereotyped pedagogical methods evolved in the ages of bookish secondary education — an education which has rarely discovered, much less studied, the learner, but the votaries of which, like Hindoo mystics, contemplative of their bodies, have focused their attention on subject-matter until self-hypnotization has rendered them oblivious to the world of external actualities.

We may summarize, then, as follows: —

1. Vocational education is a distinctive type of education, especially when promoted under school conditions. It presents distinctive new problems to the educational psychologist.

2. Present experience seems to demonstrate that a large — perhaps major — place must be given in vocational education to productive work, graduated by stages, in the occupations themselves. Historic experience may assist in shaping the programs of this work, but ultimately careful experimental studies of the processes by which skill — flexible and capable of growth — may be developed, must be made.

3. Skill and other products of direct experiential contact with vocational situations constitute a considerable part of a complete vocational education, but a no less important part will be found in the knowledge, auxiliary forms of skill, and ideals which function in the larger, more flexible, and more prolonged vocational efficiency. For education in these latter elements in the case of youths of four-

teen to eighteen years of age, existing pedagogic processes, whether scientific or customary, offer as yet little assistance. This is peculiarly a field for constructive scientific study.

X

CENTRALIZED VS. LOCALIZED ADMINISTRATION OF PUBLIC EDUCATION

Localized and democratic administration of public education is characterized by the following qualities: The constitution of the State authorizes and establishes public instruction only in most general terms; State legislation regarding it is not specific, and is largely permissive; schools and school systems are administered and supervised mainly by laymen holding office for short periods and quite responsive to public opinion; the areas of administration for important functions are small, such as districts, or wards of cities; town meetings or public elections are competent to decide a variety of administrative questions, such as appropriating money, selecting textbooks, locating schoolhouses, and deciding on new types of education; and State officials have mainly advisory powers, or at most certain powers of veto.

Centralized administration, on the other hand, exhibits the following characteristics: The State constitution fixes many administrative details, such as types of schools that may be permitted, maximum tax levies that may be imposed, methods to be employed in distributing funds, and qualifications and compensations for certain offices; the State legislature, by statute and by its control of municipal government, regulates a variety of the details of administration, thus reducing the possibilities of initiative and variation in the local community; administrative functions are transferred from the smaller to the larger areas, as when certification of teachers, selection of textbooks, formation of courses of study, inspection of schools, conduct of institutes, and other administrative functions become the duties of State officials, or when the district or the part of the city has to yield its authority to the county or to the consolidated city; popular meetings and elections diminish in number and effectiveness, their powers being conveyed to representative boards; lay boards decrease in

size, their members are appointed rather than elected, and the members' terms of office are prolonged, thus removing them from the immediate control of the popular will; under the lay boards appear experts whose functions increase at the expense of the board, whose tenure becomes relatively secure, and who are not necessarily representative of, or informed with regard to, the local opinion and will.

The history of American education shows that centralization in one form or another has been a progressive tendency for more than half a century in nearly all the States of the Union. This movement is parallel to a similar evolution which has taken place in almost all other departments of social economy, such as business, government, charity and philanthropy, research, etc. At bottom it is a product of two factors: the demand for efficiency and economy, on the one hand; and the growth of intelligence, means of communication, and organizing ability, on the other. If, under organizing ability, we include the

capacity of a democracy to select wise leaders and to maintain an effective oversight on the actions of these, then it may be said that the degree to which centralization at any time may proceed must be the resultant of the two factors mentioned above.

Centralized administration of public education may have, at any given period, some good and some bad effects. Other things remaining equal, it promotes efficiency in the following directions: —

(*a*) It develops uniformity over large areas, with the accompanying possibilities of economy. Types of educational effort may be coordinated, official bodies reduced, conflicting jurisdiction adjusted, and the material means of instruction provided on a large scale.

(*b*) It permits the collective wisdom of the larger area to control the actions of the smaller, to maintain at least a minimum level of cultural uniformity, and thus to prevent local developments hostile to the best interests of the State. The State may determine the minimum amount of money to be given locally to public educa-

tion; it may aid weaker localities; it may inspect the results of local educational effort; and it may enforce the establishment of new types of education; in a similar way, the county as opposed to the smaller areas, or the city as opposed to its divisions, may enforce conditions of efficiency better than the more minute divisions.

(*c*) It makes possible the substitution of carefully-planned and coördinated policies for the vagaries and immature schemes of purely local administration with its popular control and inexpert management. A large city, or county, or other area, or the State, in inaugurating new policies may have specialists planning the work even for years before the first step is taken. Information from various sources may be collected, and experiments conducted, before the promulgation of a new policy.

(*d*) Finally, centralized administration makes possible the introduction and development of the expert. Undoubtedly this is its most important contribution to efficiency. In proportion as the primitive art of educational admin-

istration becomes complex and is transformed into a field of applied science, the presence of specially qualified experts becomes indispensable. But the development of the expert seems to be possible only in divisions large either in area or population and under conditions of control which are not purely democratic as democracy was understood in the primitive life of America. Among the types of expert service already past the experimental stage of development in American education may be mentioned the architect, to plan and supervise the erection of school buildings; the man who is at once physician and educator, to direct various aspects of physical education, such as medical inspection, physical training, and to supervise the hygienic conditions of instruction; the business manager, to attend to the financial affairs of the school system; the statistician, who directs the making of school records and reports, and who is able to utilize these so as to derive conclusions suggestive of new administrative procedures; the specialized supervisor of instruction, whether of some

division of the educational system, as kindergartens, rural schools, grammar grades so-called, or high school, or of instruction in some type of subject-matter, such as music or manual arts; or, finally, the superintendent, the earliest of the experts to be developed, and the man who must yet stand at the head of any system, expressing its most genuine demands and coördinating the various aspects of its activities in the interest, first, of the individual child, and, second, in the final welfare of the State.

Not only have the most successful attempts at centralization thus far made possible the utilization of these experts; they create in turn new fields of leadership for which we may soon expect able men and women to prepare themselves. American education is rapidly developing the profession of superintendent of schools, an office which has no exact counterpart elsewhere, but which must become indispensable to educational progress. Other types of specialized experts must soon be provided. The development of physical education

in the broad sense of that word must give us yet the man who is physician and educator combined; the direction of vocational education will require experts who can devote their lives and a long period of training to this work; and some day we must produce leaders who can strike out plans for moral or social training and superintend their execution. It is in evidence that educational finances, school architecture, the selection of textbooks, the education of defectives and delinquents, and the adjustment of children to practical life through employment bureaus will all in turn demand their experts. These are all conditions of true educational efficiency; and their development through and under experts requires an increasing centralized administration of public education.

On the other hand, certain evils tend to follow in the train of centralized administration of public education. The most conspicuous of these are: —

(*a*) Lack of adaptability. Communities vary

in their characteristics, needs, and ability to support varying forms of public schools. One portion of a city may differ from another, rural areas may differ from urban areas, and districts populated by foreigners may present special needs. Uniform schemes administered by central authorities fail in flexibility, and become mechanical. Until we know much better than we now do the genuine aims of public education, uniform schemes may work marked harm through failure to meet local needs. This evil is not, of course, an inherent one in centralized administration, since expert direction may eventually produce flexibility, if there is intelligent local demand for it; but it is a usual accompaniment.

(*b*) Akin to this unwelcome result is the waning of popular interest. Localized and popular administration of education has produced in all sections of America a more intense public interest and activity than has any other form of social action. Some forms of political activity may thrive and develop without popular interest; not so public education. The

best of school education must blend intimately with home and community interests; the absence or withdrawal of this coöperation chills and mechanizes school agencies. Much of the effectiveness of American education has been realized, in spite of its imperfect administration, largely owing to the popular devotion to its ideals and processes. In the face of centralizing tendencies it is hard to keep alive local interest; for the most genuine form comes only when the immediate community has enough control of the administrative machinery to make its will felt.

(*c*) Equally serious is the effect of centralization in diminishing possibilities for variation and experiment. President Butler has declared that spontaneity is the characteristic feature of American education. Not only has the public school itself been indigenous to each State, but to a large extent all the special features of public education have had a local and spontaneous development. Within each State communities have vied with each other,

have embarked upon experiments, have developed and fixed variations in new directions. Speaking in biological terms the variability of American education has been enormous, which, considering the conditions, has resulted in much progress. Ultimately society will reach the point where, as now in the case of medicine, it will support conscious experimentation on a large scale in education, but until then, we can hardly afford to surrender the opportunities, however crude and wasteful, which exist in a decentralized form of educational administration, especially when the spirit of experimentation and competition still prevails. Lack of variability as in the case of adaptability is not an inherent evil of centralized administration, but a probable tendency in the pre-scientific stages in which public education still exists.

(*d*) Finally, we have to note that administrative centralization tends to entail the evils of bureaucracy, and not less when it is in charge of experts with more or less permanent tenure. These experts must inevitably

tend towards group solidarity, having kindred sentiments and interests, both in pursuit of social satisfaction and while endeavoring to accomplish mutual improvement. The relations of the experts towards the public tend to become official and formal. In time, a bureaucracy may be formed, with distinctively anti-social tendencies.

We have now described in somewhat extreme contrast the desirable and undesirable effects of the centralized administration towards which our American public school systems are, with occasional exceptions, steadily tending. There remain for consideration the means by which some adjustments between local and popular administration, on the one hand, and centralized and expert administration, on the other, can be effected so as to produce the maximum of social good. Many such adjustments have already been made in an empiric fashion, and many more are theoretically feasible. The evolution of English government, as Lowell indicates at numerous

points,[1] has produced a variety of means of combining local and central control so as to minimize the evil effects of each. The Education Bill of 1902, among other recent administrative measures in public education, brings into action a number of devices to produce the same effect. But in most of the American States it can hardly be said that policies of adjustment have reached the plane of political consciousness, notwithstanding the fact that in most State legislatures there is at each session an almost constant struggle between the opponents and proponents of measures making in turn for centralization or decentralization. Too often the contest is for the preservation of some purely local function or for its complete centralization; not enough do legislators seek constructive measures in the middle ground. But it is possible, through an examination of the results obtained in some States, and on the basis of some European experience, to suggest means of adjustment. Among these are the following:—

[1] A. Lawrence Lowell. *The Government of England*, 2 vols., The Macmillan Company, 1908.

I. The complete exercise of a given function may be divided between two agencies, one of which represents the relatively expert and centralized aspect of administration, the other the more democratic and local. According to conditions the initiative will lie with the one or the other of these agencies.

The following are the principal situations involved in educational administration: —

(*a*) The division of power between expert and lay officials. This is already found in a State like New York in which a lay board acts through an expert commissioner of education; in those forms of county government found especially in Southern States and in Indiana in which a lay board elects and operates through an expert county superintendent; and especially in cities in which the lay boards have gradually ceased to exercise administrative functions, but hold themselves responsible for general legislation and for final approval or veto of the acts of the expert superintendent. By law in the State of Ohio and by local provision in the cities of

many other States, boards of education have, after many years of hesitation, given to the superintendent the supreme function of the expert, which is the nomination of those who are to teach or otherwise work in the schools; in these cases the boards reserve only the right of final veto or approval on the nominations of the superintendent. It is needless here to point out that such a division of power as this serves largely as a corrective to various of the possible evils of centralization discussed above. Giving large powers to the expert, it yet reserves a form of final control to the public and its lay representatives. Such a conscious division of powers is not yet widely found in practice in American States. The State and county superintendents, who should be experts, are in too many instances chosen by popular election for definite terms and are responsible only to the public, all of which conditions preclude the development of the real expert. In some cases State and county boards are really composed of experts, but are only partially allocated to the per-

formance of expert functions. American cities show this division of administrative powers at its best.

(*b*) A second form of divided administrative power is found in that which is practicable between the more central and the more local agencies, whether these be expert or lay. Illustrations of this are found where the legislature fixes by statute maxima and minima of taxation, leaving to local communities considerable local option; or under a minimum salary law which allows the local area to exercise its own option in exceeding the maximum; or where State or other central approval is required for plans of buildings locally drawn; or in the existence of State courses of study which may or may not be locally adopted; but especially in the widespread tendency of State prescription of general features of courses, with opportunity for fixing the details locally. A striking development of this form of offset to centralization is found in England in which the National Board of Education suggests to local authorities a large number of alternatives

in many aspects of local administration, leaving to local authorities responsibility for proposing definite plans and specifications. These in turn must be approved by the higher authorities before they can become effective. The possibilities of a further development of this division of administrative power in American States is great, especially where centralized administration tends to become too uniform and incapable of allowing for healthful variation. There is no inherent reason why, for example, the adoption of a State system of textbooks should mean absolute State uniformity. The State might adopt two or more of the best texts and allow for local choice among these; or it might adopt a single list for all except those communities which could present good reasons for adopting some other series, which reasons could be approved or negatived by the State authorities. There is inherently no good reason why a course of study should be uniform throughout a large city, except as to its most general features. Probably much greater opportunity for prog-

ress and local adaptation would be found if large schools were each able, within the limits of a very general and minimum course, to make proposals as to details, which should receive the refusal or endorsement of the central city authorities. It is not impossible that as the demands for a richer corporate life within the school increase, the head of the school will be given much greater authority than he is now able to exercise in the choice of his assistants. "But the evidence before the committee points to the conclusion that, in the selection of their assistants, the head teachers of our public elementary schools should as a rule be allowed to have a more effective voice than is now granted to them," says Dr. Sadler in writing the introduction to the recent *International Inquiry on Moral Instruction and Training in the Schools*. The State might very well impose on the local community the obligation to support certain amounts or kinds of vocational education, but leave to the locality option as to the details, subject to inspection. On the other hand, it is probable

that in many States functions now locally exercised exclusively might well be shared with State or higher authorities, as is done to some extent in the certification of teachers. For example, local budgets, salary schedules, and pension schemes might all be made to require approval of higher authorities before final adoption. It can safely be said that centralized administration through division of responsibility between central and local authorities has had little more than preliminary development in American education. In the future developments of professional training of teachers after entering on service, in the development of professional oversight of the physical aspects of education, and in provision of moral or civic training, it is entirely possible that the State or other large area must assume increasing responsibility, but it is evident that the social effectiveness of this will depend upon a proper division of responsibility between local and central authorities.

II. Another system of correctives to centralization is that to be found in the existence

of bodies which, in the exercise of more or less localized functions, reflect public opinion, inform official and centralized agencies, and in turn, through the exercise of these powers, are themselves enlightened and have their appreciation of the general system of administration enhanced. For practical purposes we may distinguish two types of effort in this direction: that which involves laymen whose attitude towards the schools is that mainly of the public supporting the schools and interested mainly in the output; and the relatively minor officials in the system itself who are in most intimate touch with the practical problems.

(*a*) State commissions, citizens' unions, parents' associations, public education authorities of one kind and another have been organized at times to study public education, to contribute to it moral support, and by criticism, destructive and constructive, to improve it. Vastly more extensive is the informal coöperation and criticism which emanates from commercial and religious organizations, from

political parties, and from groups of people expressing more or less coherent public opinion. In the rudimentary stages of the evolution of educational administration, the last agencies described are quite ample to produce needed intimacy between the public and the schools; but as administration becomes more complex and highly and even sensitively organized, these crude agencies are not only often unserviceable, but not infrequently positively harmful. Hence the need (since the social necessity which brings forth these forms of expression continues and grows) that organized channels for the accomplishment of these purposes be fostered. Not only should the organization of large and small bodies of laymen to study and criticize the public schools be encouraged, but regular means of communication for them should be provided, and when they reach the point of constructive recommendation their findings should invariably receive courteous treatment. This will not always be easy, for in proportion as administration becomes complex will it prove

difficult to cause the layman to be well informed; and the necessary effort to accomplish this can only be justified on the ground that in the long run the resulting coöperation is indispensable to an educational administration that combines efficiency and sensitiveness to public opinion.

(*b*) In any centralized system there are large numbers of head masters, teachers, and other minor officials who are in their degree experts and who are closely in touch with practical problems. Like the lay public, these also have their special and local interests in education, and not infrequently they have the same inability to comprehend the larger aspects of the problems involved. But their sympathetic understanding, their disposition to coöperate, and especially their knowledge founded on practical acquaintance with problems is essential to the wider administration. One of the early effects of centralization, however, is largely to silence this body. Frequently a measure of suppression is thought necessary from the standpoint of the morale or discipline of the

force. Not infrequently autocratic ideas, borrowed from militaristic régimes, provide easy assent to measures taken to render the "force" orderly. And here again it must be confessed there is often great provocation. The theorizer, the sciolist, the chronic critic, are found too frequently in the body of teachers and other minor officials. Much freedom allowed to these does tend to demoralization of the teaching force, temporarily at least. But it is evident that a wise system of administration should prove abundantly able to draw on the vast resources of experience available in the ranks, and especially to stimulate the self-activity which results from the exercise of legitimate freedom, without having chaos and disorder result. That form of administration, for example, whether of State, county, or city, which utilizes to a large extent committees and associations either already formed or created for this purpose, as means of investigation, criticism, suggestion, and constructive action, is surely most effective in the long run. Examples of this kind of coöperation are

readily available, even though in many school systems no regular policy has yet been developed of providing it for a variety of situations. State, divisional, county, and city associations of teachers make recommendations as to legislation and occasionally as to administration; in the formulation of courses of study, committees of teachers or principals are formed to confer and make recommendations; in the selection of textbooks, State or more local boards have often constituted committees to examine books and make tentative recommendations. In a few cases committees of teachers have been asked to assist examining boards in preparing questions for teachers' and pupils' examinations. Recent tendencies of colleges to enlist the coöperation of secondary school teachers in preparing tests for admission to college is another instance of the same tendency.

It will, of course, be recognized that the communication and coöperation described above exist constantly in an unorganized form in most school systems; but the fact here to

be emphasized is that in a complex system of administration it is no longer sufficient to depend upon casual and unorganized efforts in this direction. So important is the interaction of the various forces of administration that as systems become unwieldy and relationships less intimate and personal, in that proportion is it necessary to organize and set in motion machinery which will systematically effect the same result. This principle has already obtained recognition in the conduct of large business affairs; owing to the sensitive and personal character of public education, the need for such mutual interaction here is much greater.

In view, then, of the rapid and to a large extent necessary centralization which is everywhere taking place in educational administration, it would seem that educators should, as far as practicable, recognize and give effect to principles like the following: —

1. The evolution of administration should be along such lines as to secure the selection

and retention of a genuine expert at the head of each important administrative function. This principle is widely observed now, especially in municipal school administration, but the glaring exceptions are the popularly elected and therefore largely inexpert county and State superintendents of public instruction in the majority of the States.

2. Back of the expert, and in ultimate but guarded authority over him, should be a committee or board representing the public and as immediately responsible to the public as possible. Such boards should be restricted as regards administrative initiative and recommendation, but their general powers of veto and approval should be large. In many cases State boards of education are at present not of this character; and the majority of city and other school boards do not yet concede to the expert the powers of initiation and recommendation here implied.

3. Administrative policy should seek a consistent division of functions between local and central administrative agencies to the end that

flexibility, variation, and mutual understanding may result. The examples of this at present are few and irregular.

4. Lay agencies and commissions temporary or permanent should be developed widely to represent local sentiment, to study administration, and finally to express public opinion. These now exist to some extent, but they are sporadic in character and receive little systematic encouragement from administrative authorities.

5. Similarly, bodies small and large should be freely created or encouraged among the rank and file of the lower officials of the force of experts for the purpose of being charged with a measure of responsibility for reflection of local expert sentiment, for study of problems, and for final recommendations. These bodies now occasionally exist, but no systematic policy has been adopted with reference to their organization and functioning.

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